Final Environmental Impact Statement

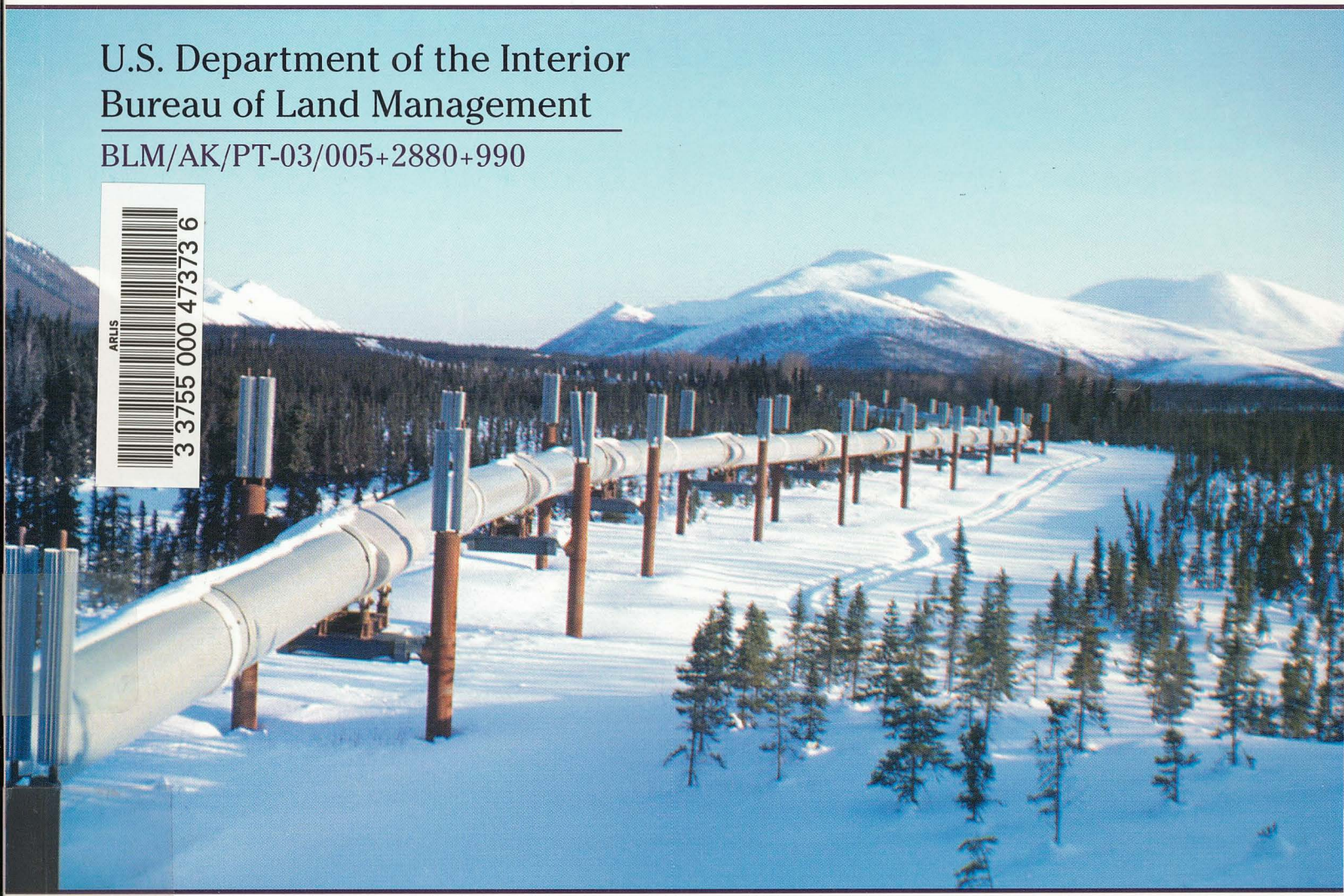
Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way

November 2002

U.S. Department of the Interior
Bureau of Land Management

BLM/AK/PT-03/005+2880+990

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Volume 6: Comment and Response Document – Part 2

BLM/AK/PT-03/005+2880+990

Final Environmental Impact Statement

Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way

Volume 6: Comment and Response Document, Part 2

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Notation

The following is a list of acronyms and abbreviations (including units of measure) used in this document.

Acronyms and Abbreviations

AAAQS	Alaska Ambient Air Quality Standards
AAC	Alaska Administrative Code
AADT	annual average daily traffic
ACEC	area of critical environmental concern
ACM	asbestos-containing material
ACMA	Alaska Coastal Management Act
ACMP	Alaska Coastal Management Program
ACS	Alaska Clean Seas
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADGC	Alaska Department of Government Coordination
ADNR	Alaska Department of Natural Resources
ADPS	Alaska Department of Public Safety
ADT	average daily traffic
AFB	Air Force Base
AFFF	aqueous film-forming foam
AFN	Alaska Federation of Natives
AK	Alaska
AKOSH	Alaska Occupational Safety and Health
ALOHA	Areal Locations of Hazardous Atmospheres
AMHS	Alaska Marine Highway System
AMM	asset maintenance management
ANCSA	Alaska Native Claims Settlement Act
ANILCA	Alaska National Interest Lands Conservation Act
ANSI	American National Standards Institute
ANUA	Alaska Native Utilization Agreement
ANWR	Arctic National Wildlife Refuge
AO	Authorized Officer (Joint Pipeline Office)
AOGCC	Alaska Oil and Gas Conservation Commission
APHIS	Animal and Plant Health Inspection Service
API	American Petroleum Institute
APSC	Alyeska Pipeline Service Company
AQCR	Air Quality Control Region
AQRV	air-quality-related value
ARCO	Atlantic Richfield Company
ARRC	Alaska Railroad Corporation
ARRT	Alaska Regional Response Team
AS	Alaska Statute
ASME	American Society of Mechanical Engineers
ATV	all-terrain vehicle
BE	biological evaluation
BLM	Bureau of Land Management (U.S. Department of the Interior)
BLS	Bureau of Labor Statistics
BMP	best management practice

BOD	biochemical oxygen demand
BOD_5	biochemical oxygen demand measured over a five-day period
BP	British Petroleum
BPXA	British Petroleum Exploration (Alaska), Inc.
BS&W	basic sediments and water
BTEX	benzene, toluene, ethylbenzene, xylene
BTT	biological treatment tank
BWT	ballast water treatment
BWTF	Ballast Water Treatment Facility
BWTS	ballast water treatment system
CBR	Constitutional Budget Reserve
CBRF	Constitutional Budget Reserve Fund
CCP	Central Processing Plant
CDMS	Corrosion Data Management System
CEO	chief executive officer
CEQ	Council on Environmental Quality
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
Cir.	Circuit Court
CMP	Coastal Management Program or Comprehensive Monitoring Program
CNG	compressed natural gas
CO	carbon monoxide
CO_2	carbon dioxide
CP	Contingency Plan
CPF	Central Production Facility
CPlan	Contingency Plan
CS	containment site
CSU	conservation system unit
CY	calendar year
CZ	coastal zone
CZM	coastal zone management
CZMA	Coastal Zone Management Act
DAF	dissolved air flotation
DBGC	designated big-game crossing
DCE	design contingency earthquake
DDT	dichloro-diphenyl-trichloro-ethane
DEIS	draft environmental impact statement
DHCMA	Dalton Highway Corridor Management Area
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DOT	U.S. Department of Transportation
DOT/OPS	U.S. Department of Transportation, Office of Pipeline Safety
DRA	drag reducing agent
DRO	diesel-range organics
DS	drill site
DSMA	digital strong-motion accelerograph
EIA	Energy Information Administration
EFH	essential fish habitat

e.g.	exempli gratia (for example)
EGHP	exhaust-gas horsepower
EIA	Energy Information Administration
EIS	environmental impact statement
EMS	environmental monitoring system or earthquake monitoring system
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ER	environmental report
ERPG	emergency response planning guideline
ESA	Endangered Species Act
et al.	and others
ETT	enhanced tractor tug
FAA	Federal Aviation Administration
FACA	Federal Advisory Committee Act
FDA	U.S. Food and Drug Administration
FDS	Fire Dynamics Simulation (computer model)
Fe	iron
Fe_2O_3	ferric oxide
FEIS	final environmental impact statement
FEOC	Fairbanks Emergency Operations Center
FLIR	forward looking infrared
FOSC	Federal On-Scene Coordinator
FR	Federal Register
FSIH	Fire Safety and Industrial Hygiene
FTE	full-time equivalent
GAO	General Accounting Office
GC	Gathering Center
GHG	greenhouse gas
GIS	geographic information system
GMU	Game Management Unit
GNOME	General NOAA Oil Modeling Environment
GRO	gasoline-range organics
GSP	gross state product
H_2O_2	hydrogen peroxide
H_2S	hydrogen sulfide
HAP	hazardous air pollutant
HAZCORE	Hazardous Materials Consolidation and Redistribution
HAZMAT	hazardous material
HAZWOPER	hazardous waste operations
HC	hydrocarbon
HCFC	hydrochlorofluorocarbon
HCl	hydrogen chloride
Hg	mercury
HRR	heat release rate
HVAC	heating, ventilation, and air conditioning

ICS	Incident Command System
i.e.	that is (id est)
IMPROVE	Interagency Monitoring of Protected Visual Environments
IRIS	Integrated Risk Information System
IRT	Initial Response Team
ISC3	Industrial Source Complex Model (Version 3)
ISCST	Industrial Source Complex Short Term
IWSS	industrial wastewater sewer system
JPO	Joint Pipeline Office
L_{dn}	day-night average sound level
L_{eq}	equivalent steady sound level
LEFM	leading-edge flow meter
LNG	liquefied natural gas
LVB	line volume balance
MAP	Man in the Arctic Program
MCCF	mobile contingency camp facility
MCL	maximum contaminant level
MEI	maximally exposed individual
MEK	methyl ethyl ketone
MGV	manual gate valve
MLA	Mineral Leasing Act
MLR	Mainline Refrigeration
MMC	Marine Mammal Commission
MMPA	Marine Mammal Protection Act
MMS	Minerals Management Service
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MP	milepost
MSDS	Material Safety Data Sheets
MSFCMA	Magnuson-Stevens Fisheries Conservation and Management Act
MSGP	Multi-Sector General (NPDES) Permit
MSWLF	municipal solid waste landfill
N	nitrogen
NAAQS	National Ambient Air Quality Standards
NADP	National Atmospheric Deposition Program
NAICS	North American Industry Classification System
NANA	Northwest Alaska Native Association
NEPA	National Environmental Policy Act
NF	National Forest
NFRAP	no further remedial action planned
NGL	natural gas liquid
NH_3	ammonia
NHPA	National Historic Preservation Act
NMDS	National Missile Defense System
NMFS	National Marine Fisheries Service
no.	number
NO_x	nitrogen oxides
NO_2	nitrogen dioxide
NO_3^-	nitrate
NOA	Notice of Availability

NOAA	National Oceanic and Atmospheric Administration
NOD	Notice of Disposal
NOI	Notice of Intent
NORM	naturally occurring radioactive material
NP	national park
NPDES	National Pollutant Discharge Elimination System
NPP	national park and preserve
NPR	National Petroleum Reserve
NPR-A	National Petroleum Reserve-Alaska
NPS	National Park Service
NRA	national recreation area
NRHP	National Register of Historic Places
NS	North Slope
NSB	North Slope Borough
NSC	National Safety Council
NSPTS	North Slope Production and Transportation System
NTP	Notice to Proceed
NWR	national wildlife refuge
NWS	National Weather Service
O_3	ozone
O&M	operation and maintenance
OCC	Operations Control Center
OCS	Outer Continental Shelf
ODC	ozone-depleting chemical
ODP	ozone-depleting potential
ODS	ozone-depleting substance
OMB	Office of Management and Budget
OMS	operational material site
OPA	Oil Pollution Act
OPS	Office of Pipeline Safety (U.S. Department of Transportation)
ORC	oxygen-releasing compound
ORV	off-road vehicle
OSHA	Occupational Safety and Health Administration
OSHTF	(Alaska) Oil Spill Health Task Force
OSPPR	Oil Spill Prevention, Preparedness, and Response
OSV	oil spill volume
P	phosphorus
PA	Programmatic Agreement
PAH	polycyclic aromatic hydrocarbon
PAI	Phillips Alaska, Inc.
Pb	lead
PBT	persistent, bioaccumulative, and toxic
PCB	polychlorinated biphenyl
PDF	pipeline design flood
PELs	permissible exposure limits
PF	Permanent Fund
PG	Pasquill-Gifford
pH	hydrogen ion concentration
P.L.	Public Law
PM	particulate matter
$PM_{2.5}$	particulate matter with a diameter less than or equal to 2.5 micrometers
PM_{10}	particulate matter with a diameter less than or equal to 10 micrometers

PMP	probable maximum precipitation
PO_4^{3-}	phosphate
POP	persistent organic pollutant
POTW	publicly owned treatment works
PPE	personal protective equipment
PPV	peak particle velocity
PRT	prevention and response tug
PS	pump station
PSD	Prevention of Significant Deterioration
PWS	Prince William Sound
QA	quality assurance
RAC	Resource Advisory Council
RCAC	Regional Citizens' Advisory Council
RCM	reliability-centered maintenance
RCRA	Resource Conservation and Recovery Act
REAA	Regional Educational Attendance Area
RGV	remote gate valve
RMP	Resource Management Plan
ROD	Record of Decision
ROS	recreation opportunity spectrum
ROW	right-of-way
RRO	residual-range organics
RSC	reduced sulfur compounds
SARA	Superfund Amendments and Reauthorization Act
SCADA	supervisory control and data acquisition
SD	standard deviation
SDWA	Safe Drinking Water Act
SERVS	Ship Escort/Response Vessel System
SHPO	State Historic Preservation Officer
Si	silicon
SIC	Standard Industrial Classification
SIP	state implementation plan
SO_2	sulfur dioxide
SOSC	State On-Scene Coordinator
SO_x	sulfur oxides
SPC	State Pipeline Coordinator
spp.	species
SRS	state recreation site
Stat.	statute
SWDS	solid waste disposal site
SWPPP	Storm Water Pollution Prevention Plan
SWTP	sanitary waste treatment plant
TAPAA	Trans-Alaska Pipeline Authorization Act
TAPS	Trans-Alaska Pipeline System
TAGS	Trans-Alaska Gas System
TCA	1,1,1-trichloroethane
TCC	Tanana Chiefs Conference
TCP	traditional cultural property
TEEL	temporary emergency exposure limit
TEF	toxic equivalency factor

TFE	tetrafluoroethylene
TLV	threshold limit value
TPQs	Threshold Planning Quantities
TRI	Toxics Release Inventory
TSDF	treatment storage and disposal facility
TSP	total suspended particulates
TSS	total suspended solids
TVB	transient volume balance
TVR	tanker vapor recovery
UAA	University of Alaska-Anchorage
UC	Unified Command
UIC	underground injection control
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UV	ultraviolet
VAHS	Valdez Air Health Study
VHF	very high frequency
VHS	viral hemorrhagic septicemia
VMT	Valdez Marine Terminal
VOC	volatile organic compound
VRM	visual resource management
VSM	vertical support member
VTS	Vessel Traffic Service
WSR	Wild and Scenic River
ZRAs	Zone of Restricted Activities

Units of Measure

acre-ft	acre-foot (feet)
bbl	barrel(s)
Btu	British thermal unit(s)
°C	degree(s) centigrade
cm	centimeter(s)
cm^3	cubic centimeter(s)
cSt	centistoke(s)
d	day(s)
dB	decibel(s)
dBA	A-weighted decibel(s)
°F	degree(s) Fahrenheit
ft	foot (feet)
ft^2	square foot (feet)
ft^3	cubic foot (feet)
g	gravitational acceleration
gal	gallon(s)
GW	gigawatt(s)
h	hour(s)
ha	hectare(s)
hp	horsepower
in.	inch(es)
$in.^2$	square inch(es)
j	joule(s)
K	kelvin degree(s)
kg	kilogram(s)
km	kilometer(s)
km^2	square kilometer(s)
knot(s)	nautical mile(s) per hour
kW	kilowatt(s)
L	liter(s)
lb	pound(s)
m	meter(s)
m^2	square meter(s)
m^3	cubic meter(s)
mg	milligram(s)
mi	mile(s)
mi^2	square mile(s)
min	minute(s)
mL	milliliter(s)
mm	millimeter(s)
mmole	millimole(s)
mph	mile(s) per hour
MW	megawatt(s)
MYA	million year(s) ago
ng	nanogram(s)
pCi	picocurie(s)
ppb	part(s) per billion
ppm	part(s) per million
psi	pound(s) per square inch
psig	pound(s) per square inch gauge
rpm	revolution(s) per minute
s	second(s)
scf	standard cubic foot (feet)
scfm	standard cubic foot (feet) per minute
wk	week(s)
YA	year(s) ago
yd	yard(s)
yd^3	cubic yard(s)
yr	year(s)
µg	microgram(s)
µg-atoms	microgram-atom(s)
µm	micrometer(s)
µmoles	micromole(s)
µR	microroentgen(s)
$/bbl	dollar(s) per barrel

Index to Comment Documents

Introduction

This Volume 6 of the Final Environmental Impact Statement (FEIS) for the Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way contains public comments on the draft environmental impact statement (DEIS) and Bureau of Land Management (BLM) responses to those comments. The BLM prepared the DEIS, which was published on July 5, 2002, in accordance with Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA). These procedures include a period of public comment on a DEIS prior to publication of an FEIS.

The comment documents are presented in numerical order by document number. Each comment document is immediately followed by the responses to those comments, except for comments presented at the public hearings (see below). To view a specific comment document and its associated responses, the reader should consult the following index to determine the document number. Two indices are provided: (1) the Individuals index contains all of the comment documents received and (2) the Agencies, Organizations and Tribal Governments index contains a subset of the Individuals index, to aid readers who may not know the names of specific people affiliated with those organizations.

The transcripts of the public hearings are presented in this volume as a set of comment documents; therefore, instead of the response immediately following the comment document, the response follows in numerical order immediately after the entire transcript document. To aid the reader, the following lists the comment documents associated with the transcripts of each public hearing. Responses to those comments follow the last document number listed for each set (e.g., responses to document number 00115 would follow document number 00140, the last comment document for the Cordova hearing).

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1 This listing of agencies, organizations, and Tribal governments was compiled on the basis of comment documents submitted on official letterheads. It is not necessarily a complete list of all agencies, organizations, and Tribal governments that commented on the Draft EIS. This listing does not include any organization that provided verbal testimony, but did not submit written comments. The Individuals index for specific speaker names can be consulted to find testimony that may also be affiliated with specific agencies, organizations, or Tribal governments.

COMMENTS AND RESPONSES

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GENERAL MANAGER
Larry J. Houle

00099

THE ALLIANCE

August 14, 2002

BLM TAPS Renewal EIS
Argonne National Laboratory EAD/900
9700 S. Cass Avenue
Argonne, Illinois 60439

RE: **Testimony as presented on August 6, 2002 in Fairbanks, Alaska**

Members of the Joint EIS and Proposed Determination Teams:

My name is Cindy Mittlestadt and I am the Communications Manager for The Alaska Support Industry Alliance—commonly referred to as "The Alliance". I'm an Alaskan resident for 13-plus years. I will submit a copy of my remarks at a date later in the public comment period. I testify before you tonight on the Draft Environmental Impact Statement and the Commissioner's Proposed Determination.

The Alliance is a non-profit trade association with chapters in Fairbanks and Kenai and is comprised of over 420 member companies who derive their livelihood from Alaska's oil and gas industry. This equates to more than 35,000 employees statewide — many of whom were involved in the pipeline's original state-of-the art construction. Of approximately 249 vendors providing direct services to the Alyeska pipeline, about 21% are Alliance members and of those member contractors, 18 are Alaska native-owned or enjoy partnerships with native entities and 21 provide direct services through the Alyeska Fairbanks Business Unit.

At its completion in 1977, eight billion dollars was invested in the project. Now in its 25th year of operation, oversight and maintenance of TAPS continues to be unparalleled. TAPS overall performance reliability rate is in excess of 99% since start-up. Alyeska's corrosion control program, valve maintenance program and spill response plans are the leaders in the industry. More than nine billion dollars has been spent each year on its upkeep. 99-1

The financial investment in maintaining the pipeline and continued throughput weighs significantly on future decisions by businesses and state government. A renewal of the pipeline rights-of-way for less than 30 years would disenfranchise new investment in the North Slope and increase business risk for Alaskan operators ultimately leading to downward spirals in employment, population, state product and income. Concurrently, the State of Alaska would experience increased budget shortages further impacting the State's ability to provide necessary services and programs. 99-2

I'd like to share with this team some statistical data compiled in a study entitled *Economic Impact of the Oil and Gas Industry on Alaska.* The study was commissioned by The Alliance and the Alaska Oil and Gas Association. The study found that the industry spends 2.1 billion annually—a dollar value equal to the State of Alaska's general fund. In other words the oil industry provides approximately 80% of the State's unrestricted revenue. Additional findings from this study include: 99-3

- The industry directly spends $422 million on payroll in Alaska and $1.7 billion on goods and services in the state. 99-4
- In the Fairbanks North Star Borough, the industry directly employs 565 people, pays $40 million in payroll, and spends $190 million for goods and services. The industry's total impact is 4,143 jobs and $158 million in payroll, respresenting 12 percent of area nonmilitary jobs and 16 percent of area payroll. 99-5
- Overall, this spending generates 33,600 jobs, $1.4 billion in payroll and value added to the Alaska economy of $1.8 billion, for total output of $3.1 billion. Providing approximately 17% of the domestic oil supply, the pipeline will continue to provide thousands of jobs and fund state services (through royalties) and programs. 99-6

Now, more than ever, Alaska's contribution to the domestic supply is critical to diminishing our reliance on foreign sources—particularly from nations whose governments are unstable, are often anti-American and some who actively support terrorist acts against the US. 99-7

Regulatory oversight of the Alyeska pipeline is unprecedented to others in North America. The Alliance believes that the Joint Pipeline Office, a 99-8

body consisting of **13 federal and state agencies,** serves a unique model for the way government and industry work together to solve problems, avoid duplication of effort and bring about best practices in government and industry.

As contractors with first-hand experience working with regulatory agencies, we know that regulations, permitting and oversight bear significant costs, often in excess of basic transaction costs. Adding an additional "layer" to this regulatory oversight (i.e. the concept of a citizens' advisory group) to the existing oversight body would only increase production costs and reduce state revenues. Such increases can only mean that our contractors will experience similar increases in their costs to provide services—this today in an environment where contractors are already pinched to provide professional and technical labor for nominal margins. Additionally, we know that production is declining as the North Slope field ages. As field production slows and throughput declines, emissions and discharges to air and water quality will be lowered. Adding any additional oversight for the next renewal term simply doesn't make good sense in concept or justify additional costs. 99-9

Ladies and gentlemen: The Alliance urges the Bureau of Land Management to renew the Alyeska Pipeline rights-of-way for 30 years under its current terms and conditions and with no additional oversight.

Thank you for the opportunity to testify this evening.

Respectfully submitted,

Cindy L. Mittlestadt

Cindy L. Mittlestadt
Communications Manager

Enc: Economic Impact of the Oil and Gas Industry on Alaska
Report dated January 15, 2001

Responses for Document 00099

00099-001: Thank you for your comment.

00099-002: Thank you for your comment.

00099-003: Thank you for your comment.

00099-004: Thank you for your comment.

00099-005: Thank you for your comment.

00099-006: Thank you for your comment.

00099-007: Thank you for your comment.

00099-008: Thank you for your comment.

00099-009: Please see Section 2.5 of the FEIS for information regarding citizens' oversight.

510-540-4163

Jim Johnson

P.O. Box 929 , Brighton, MI 48116

August 13, 2002

BLM Director Kathleen Clarke

Subject: Aging Pipeline Requires Environmental Safeguards

Dear BLM Director Kathleen Clarke:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement for the future safety of the aging Trans-Alaska Pipeline (TAPS).

My perspective is that prior to any pipeline renewal or lease agreement, government agencies must ensure critical safeguards are established. 100-1

It is my understanding that numerous serious incidents have occurred in the past inlcuding:

- The Livengood bullet hole spill (and associated long/delayed response time) - The 2 foot shift in a section of pipeline at Atigun Pass that went undetected for several months.

Additional major concerns would include: 100-2

- Corrosion and support instability from accelerated thawing of permafrost - Future seismic activities.
- Spill prevention and response plans at the 800 river and stream crossings (this issue MUST be addressed prior to any lease or contract renewals) Any spill over an anadromous river, such as the Yukon, Copper, Gulkana, or Tanana, would be economically and environmentally devastating.

Despite the fact that the pipeline crosses major fault lines, a complete new assessment on the seismic problems associated with pipeline is lacking. In all cases, contract conditions must require careful, periodic review to ensure that they reflect scientific and technological advances. Therefore, the renewed agreement should include an immediate and comprehensive independent field audit, as well as a regularly scheduled independent technical review and field audit (approximately every 3-5 years). 100-3

Funds for future pipeline dismantling, removal and restoration (DR&R) should also be provided for and placed in an escrow account. 100-4

A long overdue citizens oversight group, funded by the pipeline owners through the Department of the Interior, should be added to the renewal agreement. To ensure critical problems are adequately addressed to prevent spills a pipeline Employee Concerns Program should also be incorporated. 100-5

Thank you for consideration of this input.

Sincerely,

Jim Johnson

Responses for Document 00100

00100-001: Section 4.4.4.7, “Human Health and Safety,” provides a detailed analysis of the potential effects of oil spills on human health.

The BLM and member agencies of the JPO are committed to the protection of human health and the environment. The Federal Grant and authorizing legislation (TAPAA) provide unprecedented authority to BLM in assuring the protection of human health and the environment. Stipulations (the guiding conduct of operations for the operator of TAPS) within the Federal Grant contain numerous provisions that are protective of human health and the environment.

00100-002: The text box in Section 4.1.1.8 provides a synopsis of the MP 400 bullet hole incident. Details of the spill and the response are provided. Changes to the pipeline’s spill contingency plan that are being made as a result of lessons learned are also discussed.

Integrity of pipeline structural supports is closely monitored. See Section 4.1.3.2.1 for a discussion on the design, monitoring, and repair of pipeline structural supports and heat pipes. Ongoing monitoring of pipeline corrosion is also discussed in Section 4.1.3.2.1. Oil spill contingency planning is extensively discussed in Sections 4.1.1.7, 4.1.4, 4.4, and 4.7.10. The text box in Section 4.4.4.3 provides a detailed discussion on contingency planning in the Copper River Drainage.

00100-003: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00100-004: The reader is directed to the discussion of escrow funds found in Section 2.5.

00100-005: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

Tribal Comments, Concerns and Recommendations Regarding the Draft Environmental Impact Statement Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way as documented by The Native Village of Eyak



P.O. Box 1388
Cordova, Alaska 99574
(907)424-7738
(907)424-7739 fax

August 20, 2002

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1 Letter from President Robert J. Henrichs

2 Tribal Comments, Concerns and Recommendations Regarding the Draft Environmental Impact Statement Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way as Documented by the Native Village of Eyak

ATTACHMENTS

3 Items Regarding Government-to-Government Consultation

- BLM Manual Section 8160 – Native American Coordination and Consultation
- BLM Manual Section H-8160-1 – General Procedural Guidance for Native American Consultation
- Executive Order 13175 of November 6, 2000 Regarding Consultation and Coordination with Indian Tribal Governments
- Department of the Interior – Alaska Policy on Government-to-Government Relations with Alaska Native Tribes
- Statement Reaffirming the Government-to-Government Relationship Between the Federal Government and Indian Tribal Governments of June 14, 1991
- BLM Document regarding Cultural and Fossil Resources and Tribal Consultation on the Public Lands
- Native American Consultation in regards to the National Historic Preservation Act

4 Models for Tribal funding for TAPS impacts to subsistence and other cultural systems and resources

- US Department of Energy Office of Environmental Management Tribal Programs
- Record of Decision regarding the US DOE and Bonneville Power Administration (demonstrates more appropriate involvement of Tribes in a NEPA process)

5 Relevant Research absent from the DEIS (largely EVOS Trustee Council funded)

- Exxon Valdez oil Spill Trustee Council Bibliography of Published Research Sponsored by the Trustee Council
- Economic, Social, and Human Impacts: A Selected Bibliography on the Exxon Valdez Oil Spill

6 Original Scoping Comments Submitted by the Native Village of Eyak

509 1st Street
P.O. Box 1388
Cordova, Alaska 99574-1388
Ph (907) 424-7738 * Fax (907) 424-7739

Native Village of Eyak

10,000 years in our Traditional Homeland, Prince William Sound, the Copper River Delta, & the Gulf of Alaska

August 16, 2002

Bureau of Land Management
TAPS Renewal Draft EIS
Argonne National Laboratory EAD/900
9700 South Cass Avenue
Argonne, IL 60439

Dear Sir or Madam:

The Native Village of Eyak (NVE) has prepared the following comments on the "Draft Environmental Impact Statement Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way" (DEIS). Upon detailed review of the document, we have identified major concerns that are outlined section by section in the attached document "Tribal Comments, Concerns and Recommendations Regarding the Draft Environmental Impact Statement Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way as Documented by the Native Village of Eyak". We provide the following summary of our comments:

- Tribal consultation, as is required under Executive Order 13175 and the State of Alaska Millennium Agreement, by every federal and state agency involved in the Joint Pipeline Office, has not occurred. The following need to occur in order for meaningful consultation and coordination to occur:
    1. Development of a formal written protocol for consultation with Tribes on all aspects of the TAPS and this decision-making document specifically. This protocol must be developed jointly by agencies of the JPO and Tribes. 101-1
    2. Education and training for state and federal agency employees and contractors regarding government-to-government consultation protocols and applicable laws.
    3. Implementation of the developed consultation protocol through in-person meetings between decision makers among federal agencies and Tribal Council representatives to determine appropriate future action on matters that substantially and directly affect Tribes.
- As part of making appropriate decisions on required mitigation, the Bureau of Land Management must fund the Native Village of Eyak to conduct research into past, present and future impacts of the TAPS on subsistence and other Tribal resources in their traditional and customary use areas. This research will be utilized to minimize impacts to subsistence users and subsistence resources, as required under the Trans-Alaska Pipeline Act. 101-2

- Establish a Tribal oversight group for operations and effects of the TAPS. Composed of representatives from affected Tribes (to be jointly determined by Tribes and federal and state agencies), this group will follow guidelines established in OPA 90. 101-3
- Inconsistencies, factual errors and inaccurate depictions of Tribes, their subsistence, culture, sociocultural systems, histories, present-day status and cultural resources throughout the DEIS must be corrected as part of the Final EIS. These changes must be considered in decision-making regarding significant impacts of the TAPS. Tribes must be the primary sources for information regarding them, their villages, their culture, their histories and their present-day status. 101-4
- The conclusion that subsistence is only minimally impacted by the TAPS is not supported by the data presented. The Native Village of Eyak strongly disagrees with this conclusion. 101-5
- Sections on Environmental Justice and conclusions drawn on impacts to minority and low-income populations are incomplete and inaccurate. An additional examination of Environmental Justice in accordance with Executive Order 12898 must occur as part of the Final EIS. 101-6
- The inappropriate reliance on scientifically questionable data provided by Exxon funded and other industry funded consultants to draw conclusions of oil spill impacts and other TAPS impacts must be eliminated. 101-7
- Require Payment of the EVOS Settlement – Draft EIS states that this issue is not reasonably related to a decision on the application for renewal of the TAPS ROW. We say it is, in accordance with cumulative impacts, NEPA and the TAPAA– requiring timely payment is extremely relevant to the lease. If claims are allowed to sit without being addressed in the courts then there's no recourse for anyone in regards to damages. Expeditious payment is required under the Trans-Alaska Pipeline Authorization Act. 101-8

We request that these comments, along with all of those detailed in the attached documents, be appropriately addressed as is required by the National Environmental Policy Act that mandates this environmental impact statement be completed. Substantial changes must be made to insure that this document is an accurate reflection of the Native Village of Eyak and issues that substantially and directly impact them. In attending all of the public hearings on this DEIS except for that held in Minto, I saw firsthand that the Native Village of Eyak is not alone in its concerns regarding this document and the processes surrounding it. We are more than willing to work on a government-to-government basis with the Bureau of Land Management and others to insure the resolution of these conflicts. Please contact me if you have any questions or if our staff may provide more information.

Sincerely,

Robert J Henrichs

NATIVE VILLAGE OF EYAK TRADITIONAL TRIBAL COUNCIL
Robert J. Henrichs, President

CC: BLM Authorizing Officer – Jerry Brossia
BLM-ALASKA STATE OFFICE
Secretary of Interior Gale Norton – DOI
Special Assistant/Alaska- Drue Pearce
BLM Director
BLM Deputy Director
BLM Assistant Directors for Land and Renewable Resources, Energy and Mineral Resources and Support Services
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EPA-Alaska Operations-Jennifer Curtis
Port Graham Village Council
Nanwalek IRA Council
Tatitlek IRA Council
Chenega IRA Council
Valdez Native Tribe
Qutekcak Native Tribe
Chugach Alaska Corporation
Eyak Corporation
Tatitlek Corporation
Chenega Corporation
Chugach Regional Resources Commission
City of Cordova
US Fish &Wildlife Service
US Coast Guard
JPO-Spud William
JPO-Rob McWhorter
ADNR-John Kerrigan
BLM-Brenda Takeshorse
Alaska Federation of Natives

Tribal Comments, Concerns and Recommendations Regarding the Draft Environmental Impact Statement Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way as documented by The Native Village of Eyak

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Executive Summary and Chapter 1. Introduction

See other comments below for issues mentioning the Executive Summary and Chapter 1.

Chapter 2. Alternatives

Section 2.2 Proposed Action – Renew Federal Grant for 30 Years

Section 2.2.2 Requirements and Responsibilities under the Federal Grant

It is under the authority of these requirements and responsibilities that the Native Village of Eyak requests the Authorizing Officer to make changes to reflect federally recognized Tribes in Alaska and their role as governments as part of TAPS operations and to adopt additional mitigation as is outlined below.

Section 2.2.3 Projected BLM Oversight

This section must include Tribes in monitoring responsibilities in coordination with BLM, JPO and other federal and state pipeline regulatory agencies. The statement on page 2-3 should read:

> *"It is anticipated that during the renewal period, the BLM would continue to exercise its TAPS monitoring responsibilities through coordinated efforts with other federal and state pipeline regulatory agencies in the Joint Pipeline Office (JPO) and federally recognized Tribes."*

101-9

This monitoring should include a formal Tribal oversight group. Tribal involvement in TAPS operations is mandated under Executive Order 13175 that provides mandates regarding consultation and coordination with Indian Tribal governments put forth November 6, 2000. The order states that federal agencies are to adhere to the following criteria when formulating and implementing policies that have tribal implications: "where possible, defer to Indian tribes to establish standards; and (3) in determining whether to establish Federal standards, consult with tribal officials as to the need for Federal standards and any alternatives that would limit the scope of Federal standards or otherwise preserve the prerogatives and authority of Indian tribe" (Section 3(c)(2)).

Section 2.5 Alternatives and Issues Considered but Eliminated from Detailed Analysis

Section 2.5 #3. Require Payment of the Exxon Valdez Oil Spill Settlement.

The DEIS states that this issue is not reasonably related to a decision on the application for renewal of the TAPS ROW. We say it is, as required by the Trans-Alaska Pipeline Authorization Act and NEPA. Requiring timely payment is extremely relevant to the federal grant renewal. If claims are allowed to sit without being addressed in the courts then there's no recourse for anyone in regards to damages. Expeditious payment is required under the Trans-Alaska Pipeline Act. 101-10

Moreover, the DEIS itself states that "NEPA regulations require federal agencies to analyze the totality of the effected environmental associated with a federal action , including cumulative impacts" and include "tanker traffic associated with transporting oil from the Valdez Marine Terminal to market." (*Section 1.2 Scope of the Decision and Analysis, page 1-2*)

Section 2.5 #5. Establish an Advisory Committee Funded by the TAPS Owners

This section states that the BLM has an Alaska Resource Advisory Committee that advises the agency on matters related to the TAPS. The Native Village of Eyak would like information on who serves on this committee, especially in regards to Tribal representation. The DEIS incorrectly states that there is no authority to fund an advisory committee and yet the "Federal Grant provides significant discretion to the AO in exercising authority to correct problems. It enables the government to change requirements to respond to changing situations." (*page 2-3).* As has been mentioned above, this issue cannot be dismissed. It must be addressed in the Final EIS. 101-11

Section 2.5 #8. Establish an Escrow Account to Fund Emergency Aid for Loss of Subsistence or Economic Benefit Because of TAPS Activities, and Permit Individuals to Sue for Such Aid.

Issues regarding the Trans-Alaska Pipeline Liability Fund are also relevant to the DEIS. This is the fund established for liability of damages under the Trans-Alaska Pipeline Authorization Act (TAPAA). The Native Village of Eyak is unaware of anything but denied claims that were submitted to this fund. This fund was dissolved in 1999 and the Oil Pollution Act of 1990 liability fund replaces it. This also raises the question of how Section 30 claims are being handled since the TAPL fund was dissolved in 1999. There needs to be a mechanism to go through OPA 90 liability claims even if you have a lawsuit pending – these two shouldn't be mutually exclusive. The Secretary of the Interior and/or the Authorizing Officer need to address this extremely important and relevant issue as part of this TAPS ROW renewal. 101-12

Section 2.5 #9. Establish an Escrow Account to Fund Studies of Impacts of TAPS on Rural Alaska and to Address Those Impacts.

The Native Village of Eyak is requesting funding from BLM for Tribes to conduct further research into the effects of TAPS on subsistence as outlined under this Section that states "The BLM has the ability to fund studies it finds necessary in the course of its monitoring of the TAPS and can oblige the TAPS Owners to fund such studies." (Further 101-13

information on such a research model is presented in comments regarding Section 3.25 Subsistence).

Section 2.5 #10. Require Maintenance of 20% Native-Hire Employment and Allow Natives to Bring Suit for Failure to Achieve That Goal.

This section states that the "ANUA is between APSC, as agent for the TAPS Owners, and DOI" (*page 2-7*). As part of the DOI's government-to-government responsibility, they must communicate with Tribes regarding this action that directly affects them and their Tribal members. This is addressed in more detail below. This issue cannot be dismissed in the Final EIS as it is in the DEIS. 101-14

Section 2.5 #12. Increase Oil Spill Response Capabilities by Training, Hiring, and Equipping Additional Local Oil Spill Response Crews.

The DEIS states that "Oil spill response planning is a separate process and not part of the decision on the application to renew the Federal Grant" (*page 2-7*). This is incorrect. Oil spills are a direct impact of TAPS and its operations and it is very much a part of this renewal process. Tribes must be involved in oil spill response issues mentioned. Again, the Authorizing Officer can implement measures such as these in accordance with the Federal Grant. The Native Village of Eyak requests funding for oil spill response training and equipment. 101-15

Section 2.7. Reference for Chapter 2

The only reference cited is the TAPS Owners. This is unacceptable to base decisions on Alternatives on one industry reference. 101-16

Chapter 3. Affected Environment

Section 3.1 TAPS Background

Section 3.1.1 History

There is mention made of Section 29 of the Federal Grant that requires Alaska Natives to make up TAPS employees in numbers similar to their population statewide. The DEIS states "AOSC receives credit toward that employment goal for Alaska Natives enrolled in its Alaska Native training and scholarship programs" and that when adjusted for training and scholarship credits, 19.8% was achieved. The percentage without the adjustment should be stated clearly in the DEIS. Furthermore, Tribes should be consulted on a government-to-government basis regarding implementation and any revisions to the requirements of Section 29. 101-17

This section mentions the JPO comprehensive monitoring program. This monitoring program should include Tribes – consulting and collaborating regarding monitoring and results.

Section 3.11 Anthropogenic Influences on Physical Marine Environment

Section 3.11.5 Exxon Valdez Spill
Section 3.11.5.2 Current Conditions

These sections cite only TAPS Owners and Exxon funded researchers as sources for the effects of the spill. There is no mention of the EVOS Trustee Council funded research over a 13 year period to date (see attachments to this document for a list of references). The DEIS states "There was no evidence of large-scale offshore transport of Exxon Valdez crude to subtidal sediments". It is also mentioned that there was more oil naturally occurring at unoiled sites (Drier Bay) than at Bay of Isles on Knight Island. These assertions are simply untrue and the research not credible. The EVOS Trustee Council has funded over a decade of research, the majority of which has shown that there were substantial impacts to the environment and people from EVOS, some of which are still occurring. This data was collected by independent researchers (not funded by industry) and has undergone peer review and is published in numerous scientific journals and technical reports. This research must be utilized to determine the environmental impacts of TAPS. 101-18

Section 3.19 Fish, Reptiles, and Amphibians

Section 3.19.1.3 Prince William Sound

This section relies on very few references to the enormous amount of data that exists on fisheries alone. This section pits data collected by consultants funded by Exxon with scientists funded by the Exxon Valdez Oil Spill Trustees Council at respected state and federal agencies and universities. It is not appropriate to base conclusions about effects of the TAPS on Exxon funded, biased research. 101-19

Section 3.22 Threatened, Endangered, and Protected Species
Section 3.22.3.5 Sea Otter

This section states that "several hundred sea otters are taken annually" in Prince William Sound based on TAPS owners data (page 3.22-19). It is inappropriate to report the annual harvest of sea otters on industry data. Data references should be made to the Native Village of Eyak, US Fish & Wildlife and The Alaska Sea Otter and Steller Sea Lion Commission, who co-manage the population and have appropriate data. 101-20

Section 3.23 Economics

Section 3.23.6 Alaska Native Corporations

This section very briefly discusses Alaska Native Corporations. There is no section devoted to federally recognized Tribes along the pipeline and TAPS affected environment, nor of the direct economic impact TAPS has had to Tribes. This must be reported in the Final EIS. 101-21

Section 3.24 Subsistence

Section 3.24.1 Community Harvest Patterns

We object to the incorrect characterization of subsistence as a "collection of opportunistic behaviors" (*page 3.24-3*) Subsistence is a way of life that is sacred, deeply imbedded in the culture of a Tribe and its members, and passed down from generation to generation in a very deliberate and ritualistic way. 101-22

We question the manner in which subsistence concerns were identified that are presented sporadically throughout this section. There is a huge information gap regarding subsistence concerns of Tribes. Some that were presented during scoping are not included (This is the case with the Native Village of Eyak), while other Tribes were never given the opportunity to communicate their concerns during public scoping. Some subsistence concerns presented were gathered by ADF&G as part of a larger study and should not be presented out of context. 101-23

We strongly disagree that the data presented in this EIS are the "best available on subsistence at the community level" (*page 3.24-3*). We have attached approximately 75 pages of references for *Exxon Valdez* Oil Spill Trustee Council funded research into subsistence and other relevant topics to this document. These references must be included in decision making regarding the impacts of TAPS. 101-24

Figure 3.24-1 Locations of Potential Affected Communities and Associated Harvest Areas (when defined) (harvest areas provided by ADF&G) excludes Cordova, while Section 3.24.1.7 states that Nearly 80% of the households in Cordova fished for subsistence in 1997 (*page 3.24-16*). Where did Cordova residents fish if not in a harvest area of Prince William Sound and/or the Copper River? This is information that needs to be corrected. 101-25

Table 3.24-2 (*page 3.24-11*) shows that 4 % of households were involved in sea otter subsistence harvests in 1997. We know that there is more recent data than this (1999) collected by the ADF&G (Fall, Technical Paper No. 252). This data also separated NVE Tribal members from the Cordova population. The most recent and useful data should be utilized by the preparers in the Final EIS. 101-26

Section 3.24.1.7 Cordova

Over 80% of Cordova residents were documented in an ADF&G survey as having participated in subsistence fishing in 1997 (*page 3.24-16*), yet the DEIS states that ***no subsistence harvest areas exist in Prince William Sound except in Tatitlek and*** 101-27

Chenega. This not only makes no sense logically, it is simply not true. Errors such as this in the DEIS are red flags for what other information may be incorrect or misconstrued. We believe this is a direct result of not seeking Tribal input on this document. 101-27 (cont.)

We object to the treatment of subsistence as part of economics. The DEIS states in numerous sections that as wage employment increases, subsistence needs decrease and vice versa. This demonstrates a lack of understanding of subsistence and culture. Subsistence by Tribal members has very little to do with economics and everything to do with culture. Tribal and ADF&G sponsored research has demonstrated that subsistence occurs regardless of what wages one might be bringing in and is not replaced simply because food items are available at the grocery store. Data housed with the Alaska Department of Fish & Game Divisoin of Subsistence, US Fish & Wildlife Service and Tribes must be considered in any discussion of subsistence. 101-28

There is no mention of the Native Village of Eyak in the subsistence section. This is unacceptable. 101-29

The DEIS cites numerous times the lack of quality subsistence data. The Bureau of Land Management, under the direction of the Department of the Interior, must fund Tribes to conduct research into subsistence use and effects of the TAPS on subsistence (prior, present and future). Tribes have the capability, research experience, credentialed staff and know better than anyone what subsistence means and how it is linked to their culture and very existence. The Native Village of Eyak offers the following model for subsistence research to take place (see attachments regarding this program as well): 101-30

> The Department of Energy Office of Environmental Management has Tribal Programs/Special Initiatives devoted to the cleanup of nuclear waste sites and facilities that have affected sovereign Tribal nations located near these facilities. Cooperative agreements with Tribes allow the Tribes to establish Tribal environmental programs related to Department of Energy sites and facilities, hire Tribal staff and scientific experts to inform Tribal leaders on cleanup efforts, examine cleanup plans at the sites and provide comments on impacts of past, present and future cleanup work on Tribal lands, and preserve and protect Tribal cultural resources (artifacts, fish and wildlife, native plants, and sacred sites) at the DOE and on Tribal lands.
>
> See www.em.doe.gov/public/tribal/initiatives.html for the model that should be followed for impacts of TAPS to subsistence and other Tribal resources. TAPS should be added to the list of things the DOE Office of Environmental Management addresses and funds, or this successful initiative should be adopted by the Bureau of Land Management/Department of the Interior in regards to TAPS.

Section 3.25 Sociocultural Systems

Section 3.25.1 Alaska Native Sociocultural Systems

This section describes indigenous sociocultural systems in much of the United State as a "distant memory" (*page 3.25-1*) and states that the main reason for the resilience of Alaska Native sociocultural systems is the "late arrival of non-Natives in Alaska". We disagree with this characterization, pointing to early contact documented between Russians and non-Natives and crediting the reason for the continued existence of Alaska Native culture to the persistence and strength of the people, not simply a lack of outside contact. 101-31

This statement is typical of those made throughout the Sociocultural Systems section that belittles and discredits Tribes and their organized forms of government. Moreover, there is no scientific evidence to back up this assertion. This is a subjective and inappropriate statement to make in the DEIS.

The sociocultural systems section lacks recognition of federally recognized Tribes and relies inappropriately on the *Handbook of North American Indians* rather than the Tribes themselves for information about their history and culture. 101-32

Section 3.25.1 states that Alaska Native sociocultural systems are intersected by the TAPS (*page 3.25-2, inset*). This is incorrect. Sociocultural systems include beliefs, ideas and behavioral patterns – they are not something physical that can be crossed. The TAPS crosses the traditional and customary use areas, homelands and territories of *federally recognized Tribes*. 101-33

The Draft EIS focuses on brief historical descriptions of Tribes rather than current information on federally recognized Tribal governments. This must be corrected. The Draft EIS must recognize federally recognized Tribes, their sovereign status and their rights in the TAPS renewal. 101-34

We object to the use of the term "evolved" to describe Alaska Native sociocultural systems (*page 3.25-2*). This is a curious choice of words to assign to matters pertaining to culture and implies a progression from simple to complex or specialized. All cultures are ever changing and may begin as a complex set of beliefs and change to become less so. 101-35

The Draft EIS "examines the impact of the TAPS on the state economy, including impacts on Alaska Native corporations and on subsistence activities." This must include impacts to federally recognized Tribes. 101-36

Section 3.25.1.1 (*page 3.25-5*) states that Alaska Native groups include "Mobile bands of varying composition". This characterization is not accurate. Seasonal occupation of sites is an accurate characterization. Tribes were not and are not nomadic, which "mobile bands" and "semi-nomadic" implies. In addition, seasonal sites commonly had more than 101-37

100 occupants, not simply "smaller aggregations" and "nuclear families" as the Draft EIS states. 101-37 (cont.)

Sociocultural systems are characterized as Egalitarian. This is incorrect. Tribes had chiefs, slaves, clans and wars. Tribes can include complex political systems. To characterize them as egalitarian is a gross oversimplification. There are no sources cited for these characterizations except the Handbook of North American Indians. This is inadequate (*page 3.25-5*). 101-38

Throughout this section, Alaska Native groups and villages are referred to repeatedly. Federally recognized Tribes are conspicuously absent. This appears to be a deliberate attempt to diminish their importance and undermine their authority. A document prepared by a federal agency in accordance with a federal law should follow impacts to and discussions of federally recognized Tribes, not state chartered, for-profit corporations or villages and communities to the exclusion of Tribes. 101-39

Section 3.25.1.1.1 on Chugach Alutiiq states that there is an "absence of detailed information on the traditional Chugach sociocultural system (*page 3.25-11*)". This is completely inaccurate. An entire Alutiiq Museum exists in Kodiak that is devoted to an examination of Alutiiq culture. Chugach Alaska Corporation also operates the Chugach Heritage Foundation that has devoted years to studying Chugach Alutiiq prehistory and inventorying cultural resources in Prince William Sound and other areas. The Tribes in the Chugach region (Native Village of Eyak, Tatitlek, Chenega, Nanwalek, Port Graham, Quteckak and Valdez) are also appropriate sources for this information. 101-40

This section also incorrectly refers to Chenega and Tatitlek as "modern communities". These are federally recognized Tribes governed by elected Tribal Councils (*page 3.25-11*). The section also states that the Chugach Alaska Corporation was formed to "accommodate interests of the Chugach" people. This is an incorrect characterization of why Corporations were formed. Corporations were formed as part of the settlement of land claims, not as a solution to all "interests" of Alaska Native people or Tribes. 101-41

Table 3.25-2 is incorrect in stating that there are "286 Natives in Cordova (most probably Chugach)." The Native Village of Eyak has over 500 Tribal members who trace their ancestry to numerous clans and/or Tribes including Tlingit/Haida, Tsimshian, Aleut, Alutiiq, Athabaskan, Eyak, Chugach Eskimo, Yupik, Sugpiat, and Inupiat. The Table also incorrectly states that only 5 Eyak remained in 1985. Native Village of Eyak Tribal members who are Eyak descendents currently number over 100 according to respected elders. To state that Eyak were "largely incorporated into Tlingit" is incorrect. Further, we object to the use of the terms "never more than", "never greater than", and"Declining to fewer than" throughout the table. This appears to be an attempt to minimize the numbers of indigenous people so that the impact of the TAPS on these people can be minimized as well. 101-42

Section 3.25.1.1.1 (*page 3.25-11*) states that many Chugach Alutiiq earn wages through jobs or by pursuing commercial fishing but still pursue "subsistence to supplement wage- 101-43

based economy". This does not reflect the central role subsistence plays in the culture. A more accurate statement is that wages supplement subsistence. Further, the Draft EIS states that the importance of Chugach Native heritage is evident in the "frequent reference to kinship in social interaction". This is but one area where heritage is present. The arts and traditional knowledge are central to Chugach heritage, but this Draft EIS makes no mention of them. This is interesting to note because of the comments made by JPO and Argonne National Laboratory representatives who stated in Scoping meetings that traditional ecological knowledge would be utilized in preparing the Draft EIS. This document demonstrates a lack of understanding of the fact that receiving wages and participating in a culture are not mutually exclusive. We do not find any section in the entire DEIS that meaningful includes traditional ecological knowledge.

101-43 (cont.)

101-44

Section 3.25.1.1.2 Eyak.

Completely and wholly inaccurate information about the Native Village of Eyak and Tribal members is disappointingly in this section. To state that "Because so few Eyak remain, a discussion of Eyak culture in the 21st century is impossible" raises serious questions about Environmental Justice and the Renewal (*Section 3.25.1.1.2, p. 3.25-11*)

101-45

This section relies on one or two sources, neither of which are Alaska Native or Tribally based. The document states that Eyak were more commonly associated with the Pacific Northwest Culture Area. This does not reflect the fact that Eyak people regularly traded with those at Nuciiq and upper Copper River Tribes. This section states that Eyak modified their system to become similar to the Tlingit. This statement implies that the Eyak Tribe did not have their own system. Further, it is misleading to make this statement about one Tribe and not all. Most Tribes modify and adapt to the point that it is difficult to pinpoint which culture borrowed from the other. The DEIS states that the Eyak were separated by geographic barriers from the Interior, never mentioning access via the Copper River. Historical accounts of trade between Ahtna and Eyak people via the Alaganik Village site exist and are still discussed among elders.

101-46

We disagree with an emphasis being placed on degree of blood as evidence of heritage. Sociocultural systems are not defined by degree of blood. Further, many Alaska Native people did not claim their Tribal ancestry during the era of assimilation in this country. To rely throughout the DEIS on census records that traditionally undercount minority populations is an injustice to Tribes.

101-47

Similarly to the section on Cordova Subsistence, there is no mention in Section 3.25.1.1.2 of the federally recognized Tribe, the Native Village of Eyak,, that has over 500 Tribal members.

101-48

There are numerous references made throughout this section to Alaska Native corporations and the "benefits" and "opportunity" they provide. There is no discussion of the negative sides of these Corporations, the struggles with bankruptcy, the lack of acknowledgement of the "afterborns" and the controversy surrounding selling Corporation land.

101-49

Section 3.25.1.1.5 on the Koyukon (*page 3.25-13*) states that political awareness and influence came with sedentary villages. This is incorrect. Seasonal occupation of sites by Tribes in the past did not equate a lack of political influence or awareness. This section points out how "each Alaska Native village in the area of the Koyukon elects a chief and a village council" as if ALL 229 FEDERALLY RECOGNIZED TRIBES IN THE STATE OF ALASKA do anything less. There is also mention of a heavy reliance on traditional subsistence resources and respect for elders, again – as if this does not exist among the majority, if not all, Tribes. This demonstrates unequal treatment of Tribes and cultures in the DEIS. It also reveals a shallow treatment of the effects of the TAPS on cultural systems. 101-50

Section 3.25.1.2 Alaska Native Claims Settlement Act

It is stated that Alaska Natives lived with "little interference from the U.S. government" prior to statehood in 1958 (*page 3.25-15*). This is simply not true. Volumes have been written, particularly in Indian Law, that outline the relationship between Tribes and the federal government. 101-51

This section incorrectly states that the Alaska Native Claims Settlement Act "extinguished aboriginal rights to Alaska lands". The Act (*Title 43, Chapter 33, Section 1601 of the US Code*) states that "no provision of this chapter shall replace or diminish any **right,** privilege, or obligation of Natives as citizens of the United States or of Alaska, or relieve, replace, or diminish any obligation of the United States or of the State or Alaska to protect and promote the **rights** or welfare of Natives as citizens of the United States or of Alaska". ANCSA extinguished aboriginal claims and title to Alaska lands, not aboriginal rights. This is a subtle, but very important, difference. 101-52

Section 3.25.1.2 inaccurately portrays events related to the passage of the Alaska Native Claims Settlement Act. It does not accurately reflect that there were many Alaska Natives left out of the process of the passage of ANCSA, or the fact that the sovereignty of Indian tribes is inherent. It did not "emerge", as the Draft EIS repeatedly states, with the passage of ANCSA. 101-53

The DEIS incorrectly states that "With the onset of statehood, land claims became an area of dispute" and "Alaska Natives began to organize themselves" (*page 3.25-15*). Tribes had long before filed land claims that had never been addressed or resolved by the federal government. Neither statehood, nor pipeline construction, was the original impetus for land claims. Aboriginal rights to land were at issue long before Alaska was a state. Further, Tribes have had extremely complex, organized social structure and complex political systems since time immemorial. Europeans and Americans did not introduce nor invent politics. 101-54

The DEIS implies that village and regional corporations disperse large amounts of cash and land to individuals (*page 3.25-16*). This is simply not true and there are no appropriate references to back up this assertion. 101-55

The DEIS states that sociocultural systems initially consisted of "semi-nomadic egalitarian bands with little formal organized leadership structure and limited relationships to others outside extended kin units" and that settlement into permanent villages "required the emergence of a leadership structure" (*Page 3.25-16*). It has long been established that complex leadership structures existed among Tribes and that they were not semi-nomadic, but instead had established traditional and customary use areas better characterized as seasonal occupation. The DEIS is also incorrect in stating that the Indian Reorganization Act of 1934 "established elected formal tribal councils…concepts fundamentally foreign to all of these sociocultural systems". Tribal Councils are an ancient form of government that have existed as part of Tribal sovereignty. Tribal Councils are not a foreign concept, although state-chartered for-profit corporations were. The IRA of 1934 was merely the federal government's initial recognition in the law of a well-established form of Tribal government. It did not invent anything, but instead described something that already existed. 101-56

We disagree with the statement that "Alaska Native peoples…today live in sedentary settlements and maintain vestiges of their traditional sociocultural system;" (*page 3.25-16*). To characterize the wealth of cultural values, resources, heritage, traditional and customary use areas, homelands, subsistence harvest techniques, Alaska Native languages, art, handicrafts and oral history passed down from generation to generation that is alive and well and has persisted despite attempts to eliminate it as a "vestige" is an absolute insult to Tribes and aboriginal peoples across the world. 101-57

The DEIS incorrectly states that "those living in villages formally elect a village governing body and are associated with both a village and a regional corporation" (*page 3.25-16*) Federally recognized Tribes are governed by elected Tribal Councils. Those Tribes may be in the middle of a municipality or borough, they are not confined to villages. Further, federally recognized Tribes are not associated with state-chartered Corporations. In most cases, board members of corporations are separate and apart from Tribal Council members and Tribal members may or may not be shareholders and vice versa. The preparers of this DEIS obviously have little to no knowledge of Tribes in Alaska – their history, prehistory and present day status. 101-58

Section 3.25.1.3 Overview of Modern Alaska Native Sociocultural Concerns and Benefits

This section focuses on social problems that befall not only Alaska Natives, but the world at large. The DEIS does not mention the multitude of programs and services that Tribes provide, the progress they have made and the fact that they are leaders in research, health and social services. It instead lists substance abuse and suicide as prevalent and does little to place this in context to the larger population, or even to compare rates with lower-48 Tribes. Citing the rates of suicide and alcoholism among Alaska Natives means little when it is not done in an appropriate comparative manner. This section serves to belittle Alaska Natives and to suggest that limited financial resources are at the core of these problems and that money would solve these problems. This comes on the heels of extolling the virtues of Alaska Native corporations and all the economic benefit they have brought. To state that "Alaska Natives experience high levels of violence, substance 101-59

abuse, and behavior leading to personal and social destruction" (*Section 3.25.1.3, page 3.25-16*) is misleading. These are social ills that plague society as a whole, not solely Alaska Natives. Moreover, it is not quantified with appropriate comparative statistical analyses as stated above. This section also relies too heavily on one source for the conclusions it draws. 101-59 (cont.)

An "Overview of Modern Alaska Native Sociocultural Concerns and Benefits" should include instead the true concerns that were expressed again and again by Tribes and individual Alaska Natives as part of the Scoping process: subsistence has been affected and will continue to be affected by TAPS and mitigation with Tribal involvement must be implemented to deal with it effectively. If this section is an attempt to convey the present day status of Tribes in Alaska, it has failed miserably. 101-60

Section 3.26 Cultural Resources

"In carrying out its responsibilities under section 106, a Federal agency shall consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to properties described" (Section 101(d)(6)(B). It is clearly stated that Federal agencies shall consult with Indian tribes, not "communities" or inidividual Alaska Natives, as the DEIS incorrectly states. 101-61

The Archaeological Resources Protection Act of 1979 state in Section 470, cc(c) "Notification to Indian tribes of possible harm to or destruction of sites having religious or cultural importance: If a permit issued under this section may result in harm to, or destruction of, any religious or cultural site, as determined by the Federal land manager, before issuing such permit, the Federal land manager shall notify any Indian tribe which may consider the site as having religious or cultural importance. Such notice shall not be deemed a disclosure to the public for purposes of section 470hh of this title." It is clearly stated in the act that Tribes specifically must be notified. The DEIS must, at a minimum, accurately reflect requirements in the law that are applicable to Cultural Resources. 101-62

The Valdez/Prince William Sound region described (*page 3.26-1*) must include Prince William Sound. Cultural resources were significantly impacted by the Exxon Valdez oil spill in this area. In addition, there are numerous cultural resource sites linked to the Native Village of Eyak located in Prince William Sound that have the potential to be impacted by the TAPS and related operations. 101-63

Section 3.26.1 Archaeological Context

This section states that the "prehistory of Alaska generally is poorly understood" due to a "lack of excavated sites" (*page 3.26-1*). This is incorrect and we direct the preparers of this document to the Alaska Anthropological Association, its members and their associated scientific, peer-reviewed journal articles for a wealth of information on archaeology in Alaska. 101-64

Section 3.26.2 Known Cultural Resources

The DEIS repeatedly refers to key issues that "remain unresolved" regarding archaeological sites and associated information gaps. We feel it is appropriate for BLM to fund Tribal research into the survey and identification of cultural sites so that TAPS impacts may be realistically determined. The reliance on a decade old document (*Environmental Atlas of the Trans-Alaska Pipeline System*) prepared by the industry to determine known cultural resource site locations is inadequate (*page 3.26-2*) 101-65

This section states that regulations in place require that the Authorized Officer and an archaeologist be involved when archaeological sites are discovered. Federally recognized Tribes must also be involved in this process. This should be included. 101-66

Section 3.26.2 Traditional Cultural Properties

Tribes are listed numerous times in the National Historic Preservation Act of 1966 as partners with the federal government in providing leadership and stewardship in protecting national heritage and prehistoric and historic resources. Yet, in Section 3.26 Cultural Resources, tribes are referred to only once in regards to the possibility that a tribal consultation may occur if areas might be disturbed, but this will be decided on a case-by-case basis. (Section 3.26.3 Traditional Cultural Properties, *page 3.26-7*). Given the fact that Tribes "may assume all or any part of the functions of a State Historic Preservation Officer…with respect to Tribal lands" according to the NHPA, it would seem appropriate that Tribes be mentioned more than once in a section devoted to Cultural Resources. 101-67

Section 3.26.4 Historic Structures

TAPS does not currently meet criteria for properties to be included in the National Historic Register. The Secretary of the Interior must begin the process for potentially nominating the TAPS for the NHR by "notifying the owner of a property, and any appropriate local governments, and the general public when the property is being considered for inclusion on the National Register, for designation as a National Historic Landmark or for nomination to the World Heritage List" To our knowledge, TAPS is not being considered for such a nomination. It is misleading to present it as such in Section 3.26.4 regarding Historic Structures. 101-68

Section 3.27 Land Uses and Coastal Zone Management

This section fails to include Cordova's Coastal Zone Management Plan. This is an applicable plan in an affected area of Prince William Sound and must be included, as well as considered, in the Final EIS. 101-69

Section 3.27.1.2 Land Uses

There is an inappropriate reliance on JPO personnel communication and email as sources of information. This section should at least reference communication with Alaska Native Corporations and Tribes regarding Land Uses. 101-70

Section 3.28 Recreation, Wilderness, and Aesthetics

Section 3.28.1 Recreation

We disagree with the statement that there has been "no change in recreational use levels or opportunities…noted by the U.S. Forest Service (USFS) in the last 25 years" (page 3.28-3). Personal communication with a Forest Service employee in Cordova is the source for this statement. The Forest Service has instituted a Revision Plan for the Chugach Forest and many increases in recreation were noted in that document. In addition, there are current projects to expand access within the Chugach Forest due to increasing angler pressure and to expand camping areas and day use areas due to increased use. This statement does not mesh with the projects and technical reports the Forest Service has issued over the past two decades that refer to increased user pressure. It is not appropriate to ignore this data and evidence and base conclusions on personal communication with a Forest Service staff person. 101-71

Section 3.29 Environmental Justice

Sections on Environmental Justice and conclusions drawn on impacts to minority and low-income populations are incomplete and inaccurate. An additional examination of Environmental Justice in accordance with Executive Order 12898 must occur as part of the Final EIS. 101-72

Section 3.24 on Subsistence states that "the flow of subsistence resources through (primarily) Native sociocultural systems via several exchange mechanisms" is one of the factors of complexity. Because subsistence resources disproportionately affect Alaska Natives, this issue should also be analyzed as one of Environmental Justice in the Draft EIS, as required under Executive Order 12898. In the spirit of Executive Order 12898, we believe that Alaska Natives as a group are an "affected community" and should be treated as such in regards to Environmental Justice, no matter where their place of residence is and whether or not that community is considered "minority" based on decade-old census data. 101-73

Chapter 4. Environmental Consequences

Section 4.1 Existing Mitigation Measures

Section 4.1.1.4 JPO Comprehensive Monitoring Program

The DEIS states that "the JPO has recognized that risk can exist in all facets of TAPS operations and can originate anywhere within the TAPS infrastructure (*page 4.1-4*)." We agree with this statement. However, in the Executive Summary, the conclusion is drawn that "Since the pipeline, pump stations, Valdez Marine Terminal, and other related facilities are already constructed, continued operation of the TAPS should have minimal future environmental impacts" (Section ES.8 Conclusions, page ES-7). If one were to 101-74

follow this line of illogical thinking, one could also conclude that because a nuclear power plant is **already there**, environmental impacts from it will be minimal. 'Because it's already there' does not result in the risks of continued operation being lessened. This faulty reasoning is the basis of most conclusions drawn in the DEIS. Major work is needed to correct this document to a more accurate portrayal of the environmental impacts of the TAPS. 101-74 (cont.)

Section 4.1.3.2 Monitoring, Surveillance, and Maintenance

The DEIS states that both monitoring and surveillance activities have the ability to direct mitigation. "They do produce reliable data on the current condition of critical TAPS equipment...These data, in turn, support mitigation decisions." (*page 4.1-18*). The Native Village of Eyak requests that the Joint Pipeline Office, Bureau of Land Management and the Department of the Interior fund Tribes to monitor subsistence use and critical subsistence resources for changes over time in the same manner that TAPS equipment is monitored. Timely and accurate data on subsistence can be used to support mitigation decisions. 101-75

Section 4.1.3.3 Biological Considerations for Operations and Maintenance Activities

This section outlines several initiatives that Alyeska Pipeline Service Company (APSC) undertakes to control impacts on biological resources. This includes "training of APSC personnel about potential impacts on biological resources, including appropriate behavior toward wildlife" (*page 4.1-24*). The Native Village of Eyak requests that similar initiatives be undertaken by APSC to train personnel in cultural sensitivity and appropriate behavior toward Tribal members and all aboriginal peoples, especially in regards to subsistence harvest and use along the TAPS and surrounding impacted areas (this includes PWS). It is essential that mechanisms to include Tribes in all aspects of the TAPS be put in place as part of this renewal. 101-76

Section 4.1.5 Social, Cultural, and Economic Mitigation Features

This section does not address social, cultural or economic mitigation successfully. There are repeated references to other sections of the document as serving the purpose of social and cultural mitigation. For example, "In the environmental category, nearly all stipulations serve to mitigate social impacts" (*page 4.1-38*). This is a secondary benefit of environmental mitigation and should not be used to satisfy the requirements for social and cultural mitigation. Stipulations on minimizing scour, channel migration, undercutting, ice forces and degradation of permafrost are listed as satisfying social and cultural mitigation. These are clearly not social and cultural mitigation. 101-77

This section also states that Section 30 of the Federal Grant, regarding "Native and Other Subsistence" is a social, cultural and economic mitigation, however it is clear that Section 30 is not being enforced based on the original intent. Section 30 refers to liability in the event of subsistence damages and the Trans Alaska Liability Fund. Many Tribal members filed claims to this fund and all of the ones that we are aware of were denied. Further, this fund was completely dissolved in 1999, according to Governor Knowles' office, and the 101-78

funds were dispersed to the Denali Commission for leaking underground storage tank removal, The Oil Pollution Act of 1990 liability fund and to the Permanent Fund. Section 30, when paired with the Trans-Alaska Pipeline Act and Trans-Alaska Pipeline Liability Fund, was meant to insure prompt payment of claims resulting from subsistence damages from oil spills along the pipeline, at the terminal, or from any tanker that was loaded at the terminal and proceeded into the marine environment. With the payment of no claims from this fund and now its dissolution, there are no means for injured parties to promptly recover damages. OPA 90 prohibits filing a claim under its liability fund if there are pending claims in court. This effectively eliminates any possibilities of mitigation from subsistence damages. The Native Village of Eyak requests that the Secretary of the Interior investigate and resolve this matter prior to the TAPS ROW renewal.

101-78 (cont.)

Section 4.1.5 also points to "specific commitments made by TAPS Owners and/or APSC" regarding mitigation (*page 4.1-39*). The Native Village of Eyak responds by saying that voluntary commitments by TAPS Owners or Alyeska are not good enough. These commitments must be part of the renewal and be required and monitored by BLM, JPO and DOI, at a minimum. Further, we are aware of no such commitments that have been made with Tribes. Individual agreements with affected Tribes should be developed that outline specific social, cultural and economic mitigation measures that will be taken.

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While the purpose of Section 29 was to "ensure that Alaska Natives receive certain economic benefits from TAPS operations", it has not been successful. Those Tribes and individual Alaska Natives who do not live in Valdez or Fairbanks and are unwilling to move there from their villages, receive no direct economic benefit. To require that Tribal members move away from their homes and families in order to receive some economic gain from the pipeline is culturally and socially inappropriate. Above all else, social, cultural and economic mitigation should not further degrade social and cultural systems.

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Finally, Section 4.1.5 relies on examples of North Slope mitigation and other EIS analyses of North Slope developments conducted by BLM. The TAPS ROW renewal Draft EIS cannot base conclusions about mitigation and environmental consequences on other EIS documents for North Slope development projects. The TAPS ROW renewal process should involve in depth examinations of mitigation that is specific to this project.

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The fact that racial tension between oil workers and residents and increased availability of drugs and alcohol were not considered significant disruptions on the North Slope has no relevance to this renewal (*page 4.1-39*). There is no mention of Prince William Sound, the Interior or affected Tribes in this section. This must be revised in the Final EIS.

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Section 4.3 Proposed Action Alternative Analysis – Routine Operations
Section 4.3.19 Economics

Section 4.3.19.7 Subsistence (*page 4.3-82*).

We object to the treatment of Subsistence within the section on Economics. This section focuses on the Permanent Fund Dividend and the effect that an increasing Alaskan population would have on the dollar amount (it would diminish). This section claims that "Income growth, partly from the Permanent Fund Dividend, has led to some changes in the way subsistence activities have been undertaken". To credit income growth, and especially the Permanent Fund Dividend, as changing subsistence activities is not factual. The Draft EIS cites no sources at all for drawing this conclusion. The document further states that "A decline in income growth might affect the productivity of subsistence activities and create other socioeconomic impacts". Again, the document cites no references that were utilized in drawing this conclusion. Permanent Fund Dividends are utilized for a multitude of purposes that are as varied as the Alaskan residents who receive them. To state that PFDs somehow go directly towards altering subsistence activities (for better or worse) and to also state that "continued TAPS operation would have [only] a minor impact on subsistence" is contradictory and not based on credible scientific research. Subjective assertions like this are prevalent throughout the Draft EIS and violate the intent of NEPA, which is an objective and scientifically based look at the environmental impacts of a proposed action.

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The Draft EIS states "the demand for subsistence products would increase as the amount of income available for the purchase of consumer market goods would fall." This is again in regards to a potentially decreasing PFD. And again, this demonstrates a lack of understanding of the role that subsistence plays. It has very little to do with economics. Subsistence may increase at any time due to a need to delve into one's cultural systems, provide for Tribal events (like memorial potlatches or celebrations) or other traditional customs, etc. Economics does not play a predominant role in decisions regarding subsistence for Tribal members.

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To devote so much attention throughout Section 4.3.19 (Economics) to the PFD – an indirect benefit of the TAPS – and to correspondingly devote so little attention to more direct effects of TAPS like the *Exxon Valdez* oil spill, is inconsistent and does not represent an unbiased look at the environmental impacts of the TAPS and the proposed renewal. If the settlement of the EVOS pending claims is "not reasonably related" to the renewal of the TAPS, then neither is the PFD.

101-87

Section 4.3.20 Subsistence Impacts

This section states that "negative impacts would have to yield reduced subsistence success as a result of declining resource populations, changing subsistence resource locations, increased competition for resources, disruption of subsistence activities, reduced access to resources, or some combination of these factors that could be linked directly or indirectly to the TAPS and its continuation." (*page 4.3-82*). The EVOS Trustee Council has published numerous scientific studies that document that all of these impacts to subsistence occurred as a result of the Exxon Valdez oil spill, which is directly related to the TAPS. Yet the Draft EIS goes on to conclude that "any negative impacts to subsistence under the proposed action would be extremely small." The Native Village of Eyak strongly disagrees with this statement and demands that not only EVOS Trustee

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Council research be referenced and utilized when making a determination regarding TAPS subsistence impacts, but that Tribes be funded to conduct additional research into subsistence impacts. 101-88 (cont.)

The Draft EIS cannot conclude that impacts to subsistence would be extremely small when there is no evidence for this. In fact, there is a large volume of evidence that there have been significant and substantial impacts to subsistence directly related to the TAPS. 101-89

This section also states that TAPS has benefited subsistence because people can acquire technology that improves both transportation to subsistence resources and the process of harvesting resources. The Native Village of Eyak would like to stress that while transportation access may be improved in some (but by no means all situations), this would be offset by population reductions or absences in the aftermath of an oil spill and correspondingly higher investments of time spent to obtain uncontaminated resources. This exact situation was documented in Alaska Department of Fish & Game research related to subsistence harvests and uses subsequent to the *Exxon Valdez* oil spill (Fall and Utermohle, 1999). 101-90

We object to the treatment of traditional ecological knowledge (TEK) in the Draft EIS. The document makes no mention of Tribes and their central role in the transfer of TEK, nor the contributions TEK has made to state and federal agency research. In addition, the Draft EIS dismisses TEK as "not conclusive" and justifies this dismissal because the "assignment of cause in such a complex setting is another, challenging matter". The fact that determining causal relationships is complex is not a justifiable reason for discounting TEK. This is especially disturbing in light of the fact that during public scoping, representatives of Argonne National Laboratory and the Joint Pipeline Office explicitly stated in Tribal consultations with the Native Village of Eyak that traditional ecological knowledge would be utilized in preparation of the EIS. 101-91

The Draft EIS states that "the constraints associated with the ROW involve an extremely small area when compared with traditional subsistence harvest areas, suggesting that the magnitude of these impacts would be similarly small." (*page 4.3-86*) Again, this is extremely illogical and flawed reasoning. With this reasoning, a small wound to the heart of a human being would have similarly small impacts. With this reasoning, the impact of September 11, 2001 is "small" because it only affected three buildings in a country composed of millions of buildings. Anyone can see that these statements are ridiculous, and yet the Draft EIS is full of this reasoning. When a critical habitat area for caribou migration is affected, it does not matter how small the area is. A critical area can have a significant impact. 101-92 101-93

We strongly disagree with the statement that "Although subsistence possibly has experienced substantial negative impacts over the past several decades, at least locally, these impacts are not clearly associated with the TAPS to the exclusion of other potential causes." (*page 4.3-86*). The *Exxon Valdez* oil spill and its effects are clearly associated with the TAPS to the exclusion of other potential causes and should be addressed in this section. 101-94

Section 4.3.21 Sociocultural Systems

Section 4.3.21.1 Alaska Native Sociocultural Systems

Once again, a discussion of sociocultural systems focuses on economics, rather than the multitude of other components that make up a sociocultural system. There is no discussion of the impact on religion, language, art and other handicrafts, subsistence and its cultural basis and traditions that may or may not be passed on due to activities associated with the TAPS (including oil spills). This section concludes that impacts to Alaska Native sociocultural systems "likely would be negative though very small". We question who determines if an impact to a Tribe's culture and tradition is "small". 101-95

This section implies that all Alaska Natives benefit from public services and wage employment from the pipeline. The Native Village of Eyak receives no such economic benefits (*page 4.3-87*). This section refers to 8 Alaska Native sociocultural systems and 21 largely rural Alaska Native communities considered in this study. The Native Village of Eyak demands that the all federally recognized Tribes that are affected by the pipeline be included in any such analysis of impacts to sociocultural systems. 101-96

Further, the DEIS states that "In the case of the Eyak, near Prince William Sound, anticipated sociocultural impacts would be negligible as years of depopulation and acculturation have left only remnants of the original sociocultural system." This is incorrect information and does not recognize the Native Village of Eyak, a federally recognized Tribe with over 500 Tribal members. The Native Village of Eyak emphatically states that the Tribe has experienced, continues to experience and will experience significant impacts to their culture as a result of the TAPS. This characterization is particularly disturbing when the Native Village of Eyak was never contacted regarding the preparation of the DEIS as it related specifically to the Eyak people. No attempt was made to verify information or obtain additional data that the Tribe may have access to. The section goes on to state how much of the Inupiat traditional sociocultural system remains and how much change the Chugach Alutiiq have undergone. We strongly object to the organization of this section on sociocultural systems. It is inappropriate, incorrect and does not properly address federally recognized Tribes. 101-97

This section concludes that because "these sociocultural systems in a sense are accustomed to the TAPS and the impacts associated with it...the magnitude of these impacts likely would be small." (*page 4.3-89*) The Native Village of Eyak suggests that Tribes be the ones to determine the magnitude of TAPS impacts to their culture. 101-98

Section 4.3.22 Cultural Resources

This section must be changed to include Tribes. The sentence should read: "Amy mitigation measures would be determined on a case-by-case basis through consultation with the Alaska SHPO and the appropriate affected Tribe or Tribes (*page 4.3-90*)." 101-99

Section 4.4 – Spills Analysis for Proposed Action
Subsection 4.4.4.14 Subsistence

This section conveys the message that subsistence hunters can easily avoid spill areas and shift their activities and that subsistence resources (terrestrial and marine) will "avoid the impact area with little or no effect on their populations or areas of activity" (*page. 4.4-121*). Research into the *Exxon Valdez* oil spill has clearly shown that animals did not simply avoid oiled areas. This section goes on to state that impacts to humans would be quite small, even when the "perception that subsistence resources are dangerous or otherwise unusable might have a broader geographic impact." (*page 4.4-123*). The altering of subsistence harvest practices does not have a minor impact on a Tribe or its culture, as research of the *Exxon Valdez* oil spill has clearly demonstrated. A generation of youth was denied the benefit of certain aspects of subsistence and traditional activities as a direct result of the TAPS related EVOS. 101-100

Section 4.4.4.15 Sociocultural Resources

We object to the statement that "even if a culturally important locality were affected, the consequences of such an occurrence should not translate into impacts on a sociocultural system (changing economic orientation, kinship patterns, authority structures, etc.) Noteworthy negative sociocultural impacts are not anticipated in such a situation" (*page 4.4-123*). There are no scientific referenes and/or research to back up this situation. Further, government-to-government consultation with Tribes should occur to determine if there are "noteworthy negative sociocultural impacts." These have already been documented as a result of the EVOS when the transmission of traditional ecological knowledge regarding subsistence was halted by oiled beaches, inaccessibility and mourning over the loss of subsistence harvest areas and resources. Once again, EVOS Trustee Council sponsored research, along with Tribal research, should have been utilized in this section of the DEIS. 101-101

The DEIS incorrectly states that there would be reduced impacts on sociocultural systems by virtue of lessened impact on local economies (*page 4.4-124*). Sociocultural systems cannot be reduced to economic impacts. There are no references to back up this assertion. The DEIS also states that "shifts of subsistence activities to other rivers or other portions of an affected river" would lessen the severity of impacts without any regard for the fact that the shifting of subsistence activities has its own repercussions to cultural systems. 101-102

We strongly disagree with the statement that EVOS indicated that "sociocultural impacts likely would not be large or last a long time: (*page 4.4-125*). One source is cited for this statement, rather than the preponderance of evidence that exists to the contrary. EVOS Trustee Council funded research and the scientific literature reflect that EVOS had an enormous effect on sociocultural systems. 101-103

Finally, this section states that a spill cleanup is a positive impact because it generates cash income. This is, quite simply, ludicrous. It is not supported by any scientific evidence. It is not appropriate to include such a biased statement in this document (*page 4.4-125*). It is disturbing that the attention devoted to spill impacts on Recreation is described as more severe than those impacts to Subsistence (Section 4.4.4.18.1). 101-104

Section 4.4.4.16 Cultural Resources

This section again lacks mention of federally recognized Tribes and their role as relates to Cultural Resources. The EVOS cleanup resulted in theft and removal of artifacts, some of which are only now being returned to Tribes. Affected Tribes must be consulted in regards to Cultural Resources, not merely the SHPO and an industry appointed archaeologist. 101-105

Section 4.4.4.19 Environmental Justice

There is no basis for the conclusion that "because terrestrial resources tend to be dispersed over broad geographic expanses and harvest areas typically involve large areas well removed from the TAPS…Environmental justice impacts thus would not likely be a concern in terms of subsistence due to a spill with localized impacts on birds or terrestrial mammals" (page 4.4-141). In fact, if the area used by a minority or low income community is damaged, it is irrelevant if birds or other resources exist elsewhere that are healthy. The point of Environmental Justice is to protect those resources that are utilized by minority and low income populations and prevent damage to them that results in disproportionate effects to that population. The DEIS does not reflect an understanding of the purposes of Environmental Justice. 101-106

Again as in previous sections, this section states that "environmental justice populations would be among the beneficiaries of spill-related employment" (*page 4.4-143*), and yet there is no meaningful discussion of long-term negative impacts. This does not follow the requirements set forth by NEPA to look at both positive and negative impacts. Further, to highlight short-term economics and not mention other, more serious issues is inappropriate. 101-107

Section 4.7 Cumulative Effects

Table 4.7-2 Potential Contributions to Cumulative Effects in the Beaufort Sea, North Slope, Interior Alaska, and Prince William Sound does not include the Exxon Valdez Oil Spill (*pages 4.7-14 through 4.7-18*). This is unacceptable. EVOS is an integral part of cumulative effects of TAPS and must be considered in this section. 101-108

Section 4.7.4.5 Habitation and Development
Section 4.7.4.5.3 Prince William Sound

This section must mention the federally recognized Tribes located in Prince William Sound (Native Village of Eyak Traditional Council, Tatitlek IRA Council and Chenega IRA Council). 101-109

The following statement must be changed from:

"The population of Cordova in 2001 was about 2,500, including Eyak, a federally recognized Native village within the City of Cordova."

to: 101-110

"The population of Cordova in 2001 was approximately 2,500 people. The Native Village of Eyak, a federally recognized Tribe, houses its main office within the City of Cordova. With a membership of over 500, Tribal members constitute approximately 20% of the population."

Section 4.7.4.6.4 Alaska Marine Highway

This section should be corrected to reflect that the Alaska Marine Highway System also stops in Tatitlek and Chenega (whistle stops) (*page 4.7-42*). 101-111

Section 4.7.4.7 Legislative Actions Related to Land Use
Section 4.7.4.7.1 Alaska Native Claims Settlement Act

This section incorrectly states that "the U.S. Congress abandoned its policy of establishing treaties with Native Americans" (page 4.7-43). Treaties were never established with individual Native Americans. They were established with Tribes. This section further incorrectly states that the "status of Alaska Natives relative to the federal government was uncertain" (page 4.7-43). This is incorrect. Many Tribes had long been formed prior to statehood and Alaska Natives were eligible for Indian Health Services for more than a decade prior to statehood and the passage of ANCSA. The passage of ANCSA did not effect the status of Alaska Natives as Indians, as the DEIS implies. Once again, this document has confused Tribes, corporations and land ownership and other issues. This misinformation must be corrected in the Final EIS. 101-112

Section 4.7.7.4 Threatened, Endangered, and Protected Species

The statement that "no substantial increases in noise are anticipated in Prince William Sound, since tanker and boat traffic is not expected to increase substantially over the TAPS renewal period" (*page 4.7-107*) is not supported by any references. We suggest that there are multiple sources of information, including the State of Alaska, that document steadily increasing use of Prince William Sound. The opening of the road to Whittier has also increased use of Prince William Sound. 101-113

Section 4.7.8 Social Systems
Section 4.7.8.1 Subsistence

The conclusion that "any negative impacts that occurred would be extremely small" is not supported by available data (page 4.7-108). Further, if there is an "absence of data necessary to make a more certain assessment", BLM must – in accordance with its own policies on Native American Consultation and Coordination, conduct research to develop the necessary data. We have included BLM's Manual, Section 8160 as an attachment to this document. 101-114

This section states that "disruption to movement patterns does not appear to have occurred at a large scale involving more than relatively few individual animals" (*page 4.7-109*). This conclusion is not supported by available data, nor data quoted immediately preceding this statement that includes "scientific evidence indicates that human activities could change movement patterns…and traditional ecological knowledge from several of the rural communities in the vicinity of the TAPS associate the pipeline and related activity with changes in herd movement". The DEIS concludes that altering an entire herd is not significant. This is simply not true, according to western scientific standards and traditional ecological knowledge, both of which are supposed to receive weight in this DEIS. 101-115

We dispute the claim that there is any "additional cash" improving subsistence harvest levels in Prince William Sound, as the DEIS asserts (*page 4.7-110*). This section goes on to state that "The location and size of traditional subsistence harvest areas in Prince William Sound (for Chenega Bay and Tatitlek) would enable avoidance of spill areas" (*page 4.7-111*). This is simply not true in theory, nor in practice as the EVOS demonstrated. There was no avoidance of spill areas in the aftermath of EVOS – they were everywhere. Subsistence came to a complete and utter halt as people remained in shock. Generations of Tribal members were affected by the inability to practice traditional subsistence, pass down traditional knowledge regarding subsistence and receive traditional knowledge regarding subsistence. Further, the Native Village of Eyak traditional and customary use areas are not mentioned in the DEIS and therefore those effects were not considered in making this mistaken conclusion. 101-116

The paragraph containing these statements does not end properly. An incomplete sentence must be corrected: "The direct effects primarily would be associated with occasional disruptions to the movement of small numbers of subsistence resources due to human" (*page 4.7-111, ¶1*). 101-117

This section is summarized with the statements that the size of subsistence harvest areas would enable ample areas to remain unaffected by cumulative impacts. This is simply not true and is not based in any scientific research. On the contrary, most research documents thoroughly the impacts that abound from a single spill event (*page 4.7-111, ¶3*). 101-118

Section 4.7.8.2 Sociocultural Systems

The statement "Alaska Natives unfortunately continue to lag behind in several indicators" needs to be quantified with a comparison with minorities nationwide, instead of merely to the Alaska population as a whole (*page 4.7-112*). 101-119

There is no scientific basis for the statement that "Cumulative impacts would probably occur to the sociocultural systems in Prince William Sound, but they would probably be less extensive than those that would occur in Interior Alaska or the North Slope" (*page 4.7-114*). The reasoning that Chugach Alutiiq and Eyak have already been subject to considerable cultural change over the past two centuries and therefore continued TAPS operation would have little effect is not a logical argument and should not be used in this DEIS. 101-120

The DEIS state that impacts from tanker spills "might also affect sociocultural systems in Prince William Sound" (page 4.7-114). This is not a mere possibility. It is a reality that occurred with the *Exxon Valdez* oil spill in 1989. 101-121

The most glaring error in this section is the statement "Moreover, the only documented subsistence areas in Prince William Sound are in Chenega Bay and Tatitlek" (*page 4.7-114*). This is simply not true, contradicts available data and other sections of the DEIS, and must be corrected in the Final EIS. There are documented subsistence areas all over PWS that are part of the Native Village of Eyak's Traditional and Customary Use Areas. Many sources have documented this in published scientific journal articles and technical reports, including the heavily relied upon ADF&G. 101-122

Section 4.7.8.4 Cultural Resources

This section is inadequate and does not identify cumulative impacts. 101-123

Section 4.7.8.7 Environmental Justice

We disagree with the conclusions drawn in this section. As we have stated before, Tribal members are the primary users of subsistence resources, cultural resources and the sociocultural systems themselves that are highly impacted by TAPS and its activities. The Native Village of Eyak population is composed entirely of Tribal members and is therefore a minority population as defined in Executive Order 12898. This section must be revised accordingly (page 4.7-123). 101-124

Section 4.8.4 Mitigation of Adverse Effects

This section should be revised in the Final EIS to reflect those new mitigation measures identified by the Native Village of Eyak (*page 4.8-2*). 101-125

Chapter 5. Consultation and Coordination

Section 5.2 Government-to-Government Consultation

Section 8160 of the Bureau of Land Management's Manual addresses Native American Coordination and Consultation with respect to Native American cultural and religious concerns. The TAPS ROW renewal encompasses many issues (subsistence is but one example) that are inexorably tied to Tribal culture. The BLM Manual lists authorities of the policy that include the National Environmental Policy Act of 1969, the Federal Land Policy and Management Act of 1976 and the Alaska National Interest Lands Conservation Act of 1980 – all of which are directly involved in the TAPS ROW renewal process.

The BLM Manual (included as an attachment to this document) states that District or Area Managers are responsible for "Identifying Indian tribes that have aboriginal and/or historic ties to lands under their [the BLM's] administrative jurisdiction, regardless of where the tribe or group currently resides and they are to give "adequate consideration to identified Native American concerns." and "It is the policy of the BLM to: document fully all coordination and consultation efforts and to "Review proposed land use planning decisions and other major BLM decisions for consistency with tribal land use and resource allocation plans (including Alaska Native village or regional corporation plans, as applicable)." The Native Village of Eyak has an Integrated Resource Management Plan, Sea Otter Management Area Plan, Unified Watershed Assessment, and utilizes Chugach Alaska Corporation's inventory of cultural resource sites in Prince William Sound, Copper River and other traditional and customary use areas. None of these plans has been requested or reviewed by the BLM as required under their own policy. 101-126

"At the initiation of planning and environmental review, interdisciplinary teams should be used to define and consider Native American issues and conflicts as they apply to various proposed program decisions and actions (*BLM Manual Section 8160*)". The Native Village of Eyak has not been informed that BLM attempted to form any such teams. The Manual outlines special techniques that may be needed to identify relevant information, including the review of ethnohistoric and ethnographic literature, interviews with knowledgeable members of the Native American community, and problem-oriented ethnographic field work focusing on Native American cultural and religious values. The Manual further states "Interviews and ethnographic field work should be limited to cases where little or no information exists on the specific Native American communities." The Draft EIS repeatedly states that subsistence data presented are the "best available" but are "dated and of limited utility". This is a clear case where the BLM, according to their own Manual, should conduct interviews and ethnographic field work to obtain additional, more "reliable" information. No such data collection has been done. Further, the Native Village of Eyak, as a directly affected federally-recognized Tribe, was never contacted by the BLM or their designees regarding any Tribal research and/or data that exists on relevant subject matter to the TAPS ROW renewal. It is important to note that any data collection projects must be "reviewed and approved by the appropriate official 101-127 101-128 101-129

representatives of the specific Native American communities where field work would be conducted."

The Native Village of Eyak submitted comments during the public scoping process prior to release of the Draft EIS in October 2001. These comments were 1) not reported in the Draft EIS and/or 2) dismissed as not reasonably related to the TAPS ROW renewal. This treatment of Tribal concerns not only violates Executive Order 13175, but also the BLM's own policy on Native American Coordination and Consultation. The Manual states that information on Native American cultural issues must receive good faith consideration during decision making and that BLM decisions not unduly or unnecessarily burden the pursuit of traditional lifeways. There is no clearer evidence of the burden placed on the pursuit of the traditional lifeway of subsistence than that being endured as a result of the 1989 *Exxon Valdez* oil spill (EVOS). This oil spill is a direct effect of the operation of the Trans-Alaska Pipeline. Claims submitted to the Trans-Alaska Pipeline Liability Fund related to this oil spill were processed – they were not dismissed because they were "not reasonably related" as Section 2.5 of the Draft EIS states. The Trans-Alaska Pipeline Act is clear in stating that "if oil that has been transported through the Trans-Alaska pipeline is loaded on a vessel at the terminal facilities of the pipeline, the owner and operator of the vessel and the Trans-Alaska Pipeline Liability Fund established by this subsection, shall be strictly liable without regard to fault...for all damages, including clean-up costs, sustained by any person or entity...as the result of discharges of oil from such vessel." *(TAPA Section 1653, subpart (c))*

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We do not believe adequate consideration has been given to identified Tribal concerns, The approximately 2,000 pages that make up the Draft EIS include a mere two and a half pages devoted to Consultation and Coordination (Chapter 5). Of those two and a half pages, a brief two pages address Government-to-Government Consultation (Section 5.2). The Draft EIS states that "BLM identified 21 affected villages within the TAPS corridor and developed a formal consultation process with those affected villages." The Native Village of Eyak requests a copy of this 'formal consultation process' policy. There is no mention of the BLM's policy on Consultation and Coordination, the Department of the Interior Alaska Region's policy on Tribal Consultation, nor any mention of the numerous other applicable state and federal agency Tribal policies regarding Tribal Consultation. All member agencies of the Joint Pipeline Office are bound by their own policies and Executive Order 13175.

101-133

The Native Village of Eyak was sent a certified letter that notified them of a "briefing for affected Tribes only" in Cordova on June 4. The Tribe was not asked if this was an appropriate time for a briefing. Representatives from other Tribes, as well as from the Alaska Federation of Natives, were invited by the JPO to this "briefing" that was also labeled a "Government-to-Government consultation" without any knowledge or approval by the NVE Tribal Council. The briefing involved an overview of the public process within NEPA. While this is useful information, it did not address any aspects of Government-to-Government consultation or Tribal concerns. Furthermore, individuals leading the meeting were with Argonne National Laboratory, hardly the appropriate

101-134

federal and state agency representatives that should have been present when consulting with Tribal representatives. In addition, NVE requested an advance copy of the Draft EIS so that they might prepare issues and comments to present at this briefing meeting. There was no response to this request by the June 4 meeting.

101-134 (Cont.)

The lack of BLM understanding of appropriate Tribal consultation is illustrated in the Draft EIS with this statement: "The BLM will continue to conduct government-to-government interactions with Alaska Natives throughout the NEPA process…" Consultation occurs between governments, not with individual Alaska Natives. If the BLM does not have a grasp of this basic premise of government-to-government consultation, it is clear that appropriate Tribal consultation has not occurred.

101-135

There are numerous other sections of the Draft EIS that do not appropriately mention federally-recognized Tribes and their role in the TAPS ROW renewal. We would be happy to discuss these with appropriate BLM officials in person. Sending letters to Tribal Council Presidents and meeting face-to-face should be only the beginning of meaningful dialogue.

101-136

We suggest that all applicable Tribal consultation policies be referenced and summarized in this section. We also request that the written versions of BLM's "formal consultation process with those affected villages" be released to Tribes for their review and input.

101-137

Furthermore, attention to "federally recognized Tribes" throughout the Draft EIS is inadequate. We take issue with language used regarding Tribes and consultation in subsistence and sociocultural systems sections. The BLM and DEIS preparers demonstrate a lack of understanding that these aren't simply communities or villages. These are recognized forms of government, with elected Tribal Councils and are afforded status as sovereign nations.

101-138

Section 5.5 Agency Consultation

Section 5.5 on Agency Consultation states that BLM is in negotiations with the Alaska SHPO to develop a programmatic agreement that will clarify the procedures pertaining to cultural resources in association with future TAPS operation. Federally recognized Tribes should be part of this process on a government-to-government basis. Indeed, Section 106 of the National Historic Preservation Act **requires** involvement of affected Tribes in regards to cultural resources. The Native American Graves Protection and Repatriation Act also requires consultation with the appropriate Tribe.

101-139

Appendix D Subsistence in the Vicinity of the TAPS

Section D.3.3.7 Cordova (and Eyak)

101-140

This section has numerous inaccuracies and false information. Eyak is wrongly presented as a separate community five miles from Cordova. This is a voting precinct, not a community. This was not an Alutiiq settlement, but one of several village sites used by the Eyak Tribe. There is no separate economy for Eyak as is implied in this section. 101-140 (Cont.)

The traditional homeland of the Native Village of Eyak encompasses Prince William Sound, the Copper River Delta, and the Gulf of Alaska. It is not restricted to an area "annexed by the city of Cordova in 1992" (*page D-39*). 101-141

The section incorrectly states that "ADF&G conducted no such studies of Eyak" (page D-39). This is incorrect. A 1999 Technical Paper (No. 252) compiled by Fall and Utermohle collected a subset of subsistence data from Tribal member households. This is published and available material. 101-142

We strongly disagree with the statement that "Given the levels of wage employment, subsistence does not play an extremely important role in the Cordova economy" (page D-39. This is not only untrue and not supported by data, but it directly contradicts following statements that subsistence activity involved nearly 94% of households surveyed and hunting involved 77% of households surveyed. This is a clear majority of households and supports that subsistence is indeed an extremely important role in the Cordova economy and sociocultural systems. This is multiplied for the Native Village of Eyak. 101-143

The Native Village of Eyak must be treated separate from the city of Cordova in a manner appropriate to a federally recognized Tribe in the DEIS. 101-144

Other Comments

Length of comment period

The current 45 day comment period (the minimum required by the National Environmental Policy Act - NEPA) falls in the middle of an intense subsistence season in Alaska. This is a time when Native Village of Eyak Tribal members are especially busy with subsistence activities. Since time immemorial, indigenous people that are the ancestors of Native Village of Eyak Tribal members set aside this time to devote to salmon runs, native plants and berries and all of the cultural ceremonies that go along with these activities. This practice has been passed down from generation to generation and is still honored by Tribal members today. To limit public comment to the middle of this sacred time is not culturally appropriate. To expect concerned individuals to choose between practicing their traditional way of life and attending a modern public hearing, devoting time to reading a four volume Draft EIS and formulating comments is not just and equitable. It does not allow for full participation of affected parties, as is required under NEPA. On this basis, we ask that you extend the public comment period for an 101-145

additional 45 days to allow for effective public participation. A comment deadline of October 4, 2002 (90 days total) permits interested individuals to allocate time to the important issue of the TAPS ROW renewal as the busiest subsistence season begins to wind down. It is ironic that this should be at issue, given the rights and responsibilities outlined in the Alaska National Interest Lands Conservation Act Section 810 regarding subsistence (ANILCA). The Act states "the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy or disposition on subsistence uses and needs" and "include the findings required by subsection (a) as part of such environmental impact statement." We do not believe BLM has appropriately evaluated the effect of the TAPS on subsistence, in part because they rely on one or two sources of subsistence data. There have been numerous dissertations, scientific journal articles, conference papers and volumes written on the direct effects of TAPS and TAPS related oil spills have had on subsistence that were not cited in the Draft EIS. This is unacceptable.

101-146

101-147

While the Native Village of Eyak understands that as a Tribal government, they are not bound by the public comment deadline, they have elected to submit comments in the same time restriction as was placed on the public. The Tribal Council also advocates on behalf of the rights of individual Tribal members as citizens, who submit comments individually under the public comment deadline. The Tribe believes that the public comment period is overly restrictive and does not allow thorough reviews of the document by citizens.

101-148

Mechanisms for protection from industry

As the Enron scandal has shown, there needs to be some mechanism for the protection of citizens from big business and industry. Relying on the owner companies to exist and have adequate financial resources to dismantle the TAPS when the time for deconstruction comes is risky at best. This renewal must strengthen this weakness in the Federal Grant and assure that individuals will be protected if owner companies falter.

101-149

Questionable Preparers of the DEIS

Department of Energy funded lab (Argonne National Libratory at University of Chicago) conducted the Draft EIS. It is a conflict of interest for the Department of Energy to be funding research into the renewal of the TAPS. Further, research into the list of preparers reveals that the technical lead for subsistence, sociocultural systems, cultural resources and environmental justice has an apparent area of expertise in US/Mexico border relations and no experience whatsoever with Alaska peoples and cultures. We believe it is no coincidence that these are the areas that we found the most errors and inaccuracies. This is inexcusable, especially when considering the numerous people with appropriate credentials that exist within the state of Alaska. In addition, Tribes were not utilized (nor Alaska Natives) for the work on the DEIS. Here was yet another lost opportunity for Section 29 promises to be upheld regarding Alaska Native hire.

101-150

101-151

101-152

Comments on Impacts on Subsistence Pursuant to the Alaska National Interest Lands Conservation Act, Section 810.

101-153

Section 810 (2) requires that the head of the Federal agency, in determining the use of public lands, "gives notice of, and holds, a hearing in the vicinity of the area involved". The Native Village of Eyak does not believe this stipulation of ANILCA was adhered to. With only 7 hearings held throughout the entire state, hearings were obviously not held in the "vicinity of" all areas involved. In particular, Alaska Native villages like Tatitlek, Chenega, Port Graham, Nanwalek and numerous others where substantial and significant impacts to subsistence are felt due to the TAPS, were not given the benefit of hearings. Further adequate notice (one day notice in the Cordova Times, in the case of the first public hearing on July 26) was not given for all hearings. 101-153 (cont.)

The Native Village of Eyak also wishes all other comments that they have submitted that pertain to subsistence be considered when determining if BLM has evaluated "the effect of such use, occupancy, or disposition on subsistence uses and needs" (ANILCA Section 810 (a). We do not believe BLM has conducted a thorough evaluation of the effect of TAPS on subsistence uses and needs as required by ANILCA. 101-154

Tribal Comments Submitted During Scoping Not Considered in DEIS

The Native Village of Eyak again submits their original comments provided during scoping to be addressed in the Final EIS. They have not yet been appropriately considered. Please see original letter from President Robert Henrichs regarding Scoping comments as an attachment to this document. 101-155

Mitigation for use of Tribal Homeland/Traditional and Customary Use Areas

The Native Village of Eyak proposes direct annual lease payments to Tribes along the TAPS Right-of-Way and in Prince William Sound in return for benefits TAPS receives from the use of Tribal homelands and traditional and customary use areas. Tribes have received few benefits from the billions paid to the State of Alaska, due in large part to reallocation to urban areas by the legislature. Education programs have been largely unavailable to Tribal members. Direct payments of one million dollars per year per Tribe will insure that benefits are received from the use of Tribal resources. The Native Village of Eyak is prepared to present a formal proposal and budget for the use of these dollars. 101-156

Prompt Payment of Liability Claims resulting from TAPS

As suggested in these comments previously, the Native Village of Eyak believes that not only must damages for the Exxon Valdez oil Spill be paid prior to the renewal of the Federal Grant, but methods for prompt payment of all claims must be established. This may involve an escrow fund and stricter enforcement of regulations and mechanisms already established, with revisions as necessary. 101-157

Responses for Document 00101

00101-001: The BLM conducted extensive government-to-government consultations under Executive Order 13175. Consultation with the Village of Eyak included several meetings, written correspondence, and telephone conversations. Section 5.3 of the FEIS provides details of the government-to-government process. The BLM is not required to provide training, education, or financial support for government-to-government interactions.

00101-002: Based on comments on the DEIS, considerable additional review of subsistence information was conducted, including attention to a small number of additional studies. With this additional analysis, the EIS is able to draw reasonable conclusions on the basis of existing information.

00101-003: Establishment of a Tribal oversight role for TAPS operations and maintenance is outside the scope of the environmental impact statement process for the renewal of the Federal Grant of Right-of-Way. In addition, legal and regulatory circumstances do not allow the BLM to create a specific TAPS Tribal oversight group. While Executive Order 13175 requires the BLM to consult with Tribal groups through government-to-government consultation, it does not exempt the BLM from its statutory authority to provide regulatory oversight for all TAPS operations and maintenance. This authority can not be displaced, shared, or abdicated. Agencies that operate within the framework of the Joint Pipeline Office (JPO) also derive their oversight responsibilities from specific statutes and regulations. As with the BLM, these authorities form a legally binding regulatory responsibility on the agencies.

Tribal participation and Tribal input has and will continue to be a fundamental component of the government's responsibility to ensure safe and environmentally protective TAPS operations. Many laws and regulations that direct specific TAPS oversight and compliance issues include mandated Tribal as well as public review and comment; for example, subsistence hearings and oil spill response planning. Review and comment by Tribal groups and the public ensure full and open disclosure of the decision-making process. In addition, BLM-Alaska has a legally authorized Resources Advisory Council (RAC) that meets regularly to discuss land management issues in Alaska. The RAC is composed of a diverse cross-section of citizens, including a Tribal representative who provides advice to BLM-Alaska and who functions in a collaborative setting.

00101-004: The purpose of an EIS is to compile a wide range of data on the natural and cultural environment as a basis for impact analyses, and synthesize and summarize these data accurately for use by decision makers. It is not possible in a document as broad in scope as this EIS to provide a detailed discussion of all Alaska Native groups affected by the TAPS renewal and still meet the requirement for a simple, understandable document. The sections of the EIS relating to Alaska Natives are based on the main published sources pertaining to the groups of interest. Those sections have been reviewed following the receipt of public comments on the DEIS and any factual errors or misstatements have been corrected.

00101-005: Section 3.24 and Appendix D present available data for the evaluation of subsistence impacts on the rural Alaskans who conduct this activity, including Alaska Natives living in such settings. Section 4.3.20 presents anticipated impacts under the proposed action, Section 4.4.4.14 discusses impacts of spills associated with the proposed action, and Section 4.7.8.1 discusses cumulative impacts of renewing the TAPS combined with other impacts. The existence of greater impacts associated with the TAPS is not supported by available data.

00101-006: As discussed in Section 3.29, the environmental justice assessment in this EIS is based on evidence of likely disproportionate high and adverse impacts to low-income and minority populations. The evaluation of environmental justice impacts involves all impact areas and all alternative actions (including those considered under cumulative impacts) examined in the document. The Native Village of Eyak evaluation of the assessment is noted.

00101-007: As stated in Section 4.4.1 of the EIS, the spills analysis applied in the EIS is based on available literature concerning current TAPS operations, taking into account spills analyses that have been performed in other EISs. This was done to ensure due consideration of a wide spectrum of spill scenarios consistent with current industry practice.

00101-008: The reader is directed to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00101-009: Establishment of a Tribal oversight role for TAPS operations and maintenance is outside the scope of the environmental impact statement process for the renewal of the Federal Grant of Right-of-Way. In addition, legal and regulatory circumstances do not allow the BLM to create a specific TAPS Tribal oversight group. While Executive Order 13175 requires the BLM to consult with Tribal groups through government-to-government consultation, it does not exempt the BLM from its statutory authority to provide regulatory oversight for all TAPS operations and maintenance. This authority can not be displaced, shared, or abdicated. Agencies that operate within the framework of the Joint Pipeline Office (JPO) also derive their oversight responsibilities from specific statutes and regulations. As with the BLM, these authorities form a legally binding regulatory responsibility on the agencies.

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00101-010: The reader is directed to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00101-011: Section 2.5 has been revised to better explain why BLM is not considering in detail an alternative including creation of an advisory committee.

00101-012: Section 30 of the Federal Grant requires Permittees to give special attention to the protection of subsistence resources in the vicinity of TAPS, as well as complying with any additional requirements the Secretary may impose to protect the interests of people in the area who relay on subsistence resources. In an emergency situation (large oil spill) the Secretary may order Permittees to provide emergency subsistence or other aid, pursuant to claims submitted under Section 204(a) of the Trans-Alaska Pipeline Authorization Act. Such claims may be determined either by arbitration or judicial proceedings.

00101-013: The reader is directed to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00101-014: Section 29 issues have been a major component of the ongoing government-to-government process under TAPS renewal. BLM welcomes continued dialog with all affected Native Tribes related to Section 29 issues.

A copy of the 2001 Alaska Native Utilization Agreement (ANUA) and its implementing plan have been added to the FEIS as Appendix F. These documents detail the Section 29 requirements, as agreed to by the company and BLM/DOI.

00101-015: The EIS clearly views oil spills as an impacting factor and presents an in-depth analysis of potential oil spill scenarios (Sections 4.4, 4.5.1.2, and 4.6.1.2). The implementation of oil spill planning is contained in the Trans-Alaska Pipeline System Pipeline Oil Discharge Prevention and Contingency Plan, CP-35-1 GP, prepared in 2001 by the APSC (C-plan). Oil spill planning is an ongoing process, and the logistics of oil spill responses consider the entire TAPS system. This is conducted within the guidelines of the C-plan process. The awarding of contracts for oil spill responses is outside the scope of the EIS process.

The reader is also referred to the text box in Section 4.4.4.3 that describes spill response, planning, and mitigation for the Copper River Drainage.

00101-016: As part of the application for renewal process, the applicant provides the BLM with a description of how TAPS would be operated. The description of the operation then becomes a component of the extensive impact analysis conducted by the BLM.

00101-017: Section 29 issues have been a major component of the ongoing government-to-government process under TAPS renewal. BLM welcomes continued dialog with all affected Native Tribes related to Section 29 issues.

A copy of the 2001 Alaska Native Utilization Agreement (ANUA) and its implementing plan have been added to the FEIS as Appendix F. These documents detail the Section 29 requirements, as agreed to by the company and BLM/DOI.

00101-018: The discussion of the EVOS is included in the document as background and to describe the environment that could potentially be affected by future pipeline operations. It is not meant to be an exhaustive treatment and does not attempt to list or quantify the impacts caused by the EVOS.

Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10. The discussion in Section 4.4.4.10.2 of the effects of the EVOS on fish resources has been expanded and includes additional citations.

00101-019: We believe that the EIS fairly presents the status of the debate over ongoing impacts of the Exxon Valdez oil spill on fish populations in Prince William Sound. Additional references and discussion have been added to Section 3.19.3.

00101-020: Section 3.22.3.5 text has been revised to indicate that the mean annual subsistence harvest of sea otters was 297 from 1996 to 2000, based on U.S. Fish and Wildlife Service data.

00101-021: Text discussing federally recognized Tribes has been added to Sections 3.25.1.1 and 3.25.1.2.

00101-022: Subsistence is defined at the beginning of Section 3.24. Included in that definition is the range of resources that subsistence activities provide, and the three main roles that subsistence by Alaska Natives plays: economic (in the sense of providing resources), socio-cultural, and ceremonial. The statement cited in the comment has been modified to refer to “flexible and strategic” behaviors, and is intended to convey the idea that specific subsistence activities change in response to a number of factors such as resource availability.

00101-023: During the preparation of the EIS, the EIS team reviewed public scoping documents to include all pertinent subsistence concerns that were (or could be) directly related to the TAPS. Comments provided by the Native Village of Eyak were included in more general terms; Section 3.24.2.4.2 has been revised to note these concerns more explicitly.

All Alaska Native Tribes were provided an opportunity to provide scoping comments, which could have been submitted in seven different ways. The majority of these did not require attending public scoping meetings.

00101-024: A member of the EIS team reviewed the list of references provided with the comment. The list totaled 46 pages, as opposed to approximately 75 pages noted in the comment. Moreover, the vast majority of the references pertain more to biological resources rather than subsistence, though a relationship between biological resources and subsistence certainly exists. Of the references listed, 14 explicitly concern subsistence and none of those present subsistence-harvest data that would improve the overview presented in the EIS with respect to the breadth of resources used, levels of participation, or levels of use at the community level. The EIS is obliged to consider sufficient published and other resources on which to base an evaluation of impacts from all alternative actions, which may or may not include the references on this list. As it turns out, several of the references on the list were consulted during preparation of the EIS, and are cited accordingly for subsistence and other impact areas (e.g., human health).

00101-025: Additional consultation with ADFG and the US Forest Service resulted in access to GIS data documenting the traditional subsistence use area of Cordova residents (including Eyak Tribal members) based in interviews conducted by ADFG in the late 1980s. This subsistence use area is now included in Map 3.24-1, and displayed in more detail in Section D.2.3.4.2.

With regard to seeking Tribal input on this document, in April 2002 EIS personnel contacted the 21 directly affected villages/tribes by certified mail to explore the acquisition of additional information, including traditional ecological knowledge pertaining to subsistence (which could have included geographic information on subsistence harvest areas). These letters were sent to the tribal councils of Eyak, Pt. Graham, and Nanwalek. To date, no response to those letters has been received. In addition, the EIS process has been coordinated through government-to-government interaction between the Bureau of Land Management, the State of Alaska, and federally recognized tribes in Alaska that has been ongoing since April 26, 2001, as described in Section 5.3, Table 5.3-1.

00101-026: Additional consultation with ADFG and the US Forest Service resulted in access to GIS data documenting the traditional subsistence use area of Cordova residents (including Eyak Tribal members) based in interviews conducted by ADFG in the late 1980s. This subsistence use area is now included in Map 3.24-1, and displayed in more detail in Section D.2.3.4.2.

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00101-027: Additional consultation with ADFG and the US Forest Service resulted in access to GIS data documenting the traditional subsistence use area of Cordova residents (including Eyak Tribal members), based in interviews conducted by ADFG in the late 1980s. This subsistence use area is now included in Map 3.24-1, and displayed in more detail in Map D-1.

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00101-028: The comment misstates the position of the EIS with regard to subsistence and economics (here wage labor). To begin with, subsistence is examined as a separate impact area in the EIS, not as a part of economics, with the many places where both issues are discussed noted in the Table of Contents in Volume 1. Although the EIS characterizes subsistence in terms of three roles—economic, sociocultural, and ceremonial (Section 3.24)—it does not view subsistence for Alaska Natives in economic terms to the exclusion of the other two. With regard to the impact of wage employment on subsistence, the EIS states in several places (e.g., Section 4.3.20, Section 4.7.8.1) that additional cash would provide improved access to technology used to conduct subsistence. In the discussion of impacts under the No-Action alternative (Section 4.6.2.20), allusion is made to possible increases in subsistence activity in the face of reduced cash income with which to purchase food, but that focuses on rural Alaskans (not exclusively on Alaska Natives) as a whole and would be one possible and likely response to meeting nutritional needs. Sections 4.3.19 and 4.6.2.19 have been revised to note that subsistence is not purely an economic pursuit and subsistence activity is not necessarily tied to economic behavior. The primary source of data on subsistence comes from the Alaska Department of Fish and Game; the EIS relied heavily on these data, as noted primarily in Section 3.24 and Appendix D.

00101-029: Eyak is explicitly mentioned in Section D.2.3.4.2, which deals with subsistence in Cordova (and Eyak). We have added text to Section 3.24.2.4.2 which similarly describes the Native Village of Eyak and its annexation by Cordova.

00101-030: The BLM recognizes that there may be interactions between the TAPS and subsistence resources. The BLM also notes that current information does not show a direct relationship between TAPS and subsistence impacts. The BLM and State of Alaska within JPO are currently working with industry and others to develop a science-based approach to determine how TAPS and subsistence interact.

00101-031: No statement in the EIS is intended to belittle, demean, or patronize Alaska Natives, federally recognized Tribes, or any other group. Section 3.25.1 has been revised to provide a more thorough treatment of Alaska Native sociocultural systems.

00101-032: A discussion of federally recognized tribes and their relationship to Native corporations and village corporations has been added to Section 3.25.1.2.

The Handbook of North American Indians remains an important scholarly synthesis of ethnographic and ethnohistoric material on Alaska Natives. Attempts to involve the 21 directly affected villages, including the Native Village of Eyak, in providing additional information on their cultures (e.g., certified letter of April 2002, exploring the possibility of acquiring traditional ecological knowledge and knowledge of traditional cultural properties) received no response.

00101-033: The inset in Section 3.25.1 has been revised.

00101-034: Text discussing federally recognized Tribes has been added to Sections 3.25.1.1 and 3.25.1.2.

00101-035: The term "evolve" is used here in the sense of "change over time." No inherent value is implied for that change. An increase in cultural complexity is not necessarily implied. The comment correctly notes that all cultures are ever-changing.

00101-036: Differences in the impact of renewal and termination for different parts of the state, presented in terms of population (including migration), employment, and personal income, are included in the EIS. This includes impacts that would occur in three boroughs (Fairbanks-North Star and North Slope), three census areas (Southeast Fairbanks, Valdez-Cordova and Yukon-Koyukuk) and in Anchorage. At this level it is clear that that the decision to renew or terminate TAPS would have differential impacts in each of these areas, with impacts across the six areas varying according to various factors, in particular, the extent of local employment directly related to pipeline operations and local government reliance on property tax revenues on oil property..

In general, personal incomes in Alaskan Native Villages are lower than in the state as a whole and unemployment, especially in smaller Villages, is high, particularly during the winter when there is little alternate market-based activity. Because of the key role of subsistence in many Village economies, economic data that is collected for these communities may not fully represent their economic well-being. For example, many transactions between individuals involving the exchange of subsistence products that would otherwise provide income if they took place in the marketplace are not reflected in personal income statistics. Similarly, unemployment data may not reflect the extent to which additional economic activity may be required if subsistence activities provide a sufficient alternative to participation in the marketplace. In addition, the large differences in prices between urban and rural Alaska may exaggerate the corresponding differences in economic well-being depending on the extent to which local community members in rural areas have to participate in the local market economy for key consumer items, such as food, clothing, and energy, and the extent to which these items can be obtained through participation in subsistence activities. Because of these problems, the analysis undertaken for the EIS did not estimate the impacts of renewal and non-renewal for areas and Villages below the level of the Census Area/Borough.

Additional text has been added to Section 3.23 of the EIS to clarify the scope of the economic analysis.

00101-037: The terms "nomadic," "seminomadic," and "mobile" are not pejorative and are accurate characterizations of traditional settlement systems for "many Alaska Native groups," a passage which the comment seemed to exclude. The EIS uses the terms "nomadic" and "seminomadic" only in reference to traditional lifeways practiced at or shortly after Euro-American contact. It uses the term "mobile" in reference to seasonal site occupation, a practice that requires mobility. No pejorative meaning is attached to any of these terms. Neither is there any negative connotation associated with the seasonal dispersal of Alaska Native groups into smaller units and reaggregation into larger groups, depending on the resource being exploited. No absolute size limits are implied.

00101-038: The EIS describes an egalitarian tendency among "most" Alaska Native sociocultural systems, in particular, pointing to these systems around the time of Euro-American contact. This does not imply that all systems are or were egalitarian. Moreover, the EIS does not equate "egalitarian" with "simple" or "primitive." In egalitarian societies, status is achieved rather than ascribed at birth. Table 3.25-2 describes a number of complex egalitarian-ranked societies, with partially inherited leadership as well as hierarchical clan structure, which the comment appears to have overlooked. The Handbook of North American Indians of course presents overviews of Native peoples based on hundreds of references; in addition, a number of other references were consulted in developing the synthesis of Native peoples in Section 3.25.1.

00101-039: There has been no attempt in the EIS to demean or trivialize federally recognized Tribes or federally recognized tribal governments. Text concerning federally recognized tribes has been added to Section 3.25.1.2, which also offers a discussion about Alaska Native regional and village corporations.

00101-040: The Chugach were among those Alaska Natives to come into early and sustained contact with Euro-Americans. Archaeological evidence suggests that their traditional culture was altered before it could be systematically recorded. The existence of museums and heritage centers does not change this fact, and indeed they would be hindered in their understanding of pre-contact and early contact sociocultural systems by the same constraints. The conclusions of archaeological and ethno-historical investigations of the Alutiiq must of necessity remain speculative to some degree.

00101-041: It is not inherently inconsistency to describe federally recognized tribes as "modern communities" if they are such. Section 3.25.1.1.1 has been reworded.

00101-042: Table 3.25-2 has been revised to note that the 2000 Census identifies 368 Alaska Native residents in Cordova. This is the figure for persons identifying themselves as part or all Alaska Native. This Table and the associated text concerning the Eyak sociocultural systems have been substantially revised to indicate that the figures cited in the comment derive from academic scholarship, in which language and blood quantum were emphasized in identifying Eyak cultural heritage. The contrasting perspective of the Native Village of Eyak is now described in the text, noting that the Tribe reports a membership of over 500, with many Alaska Native ethnicities; 100 members are recognized by elders as being of Eyak descent.

00101-043: The comment quotes a passage in the middle of a sentence in Section 3.25.1.1.1 designed explicitly to support the persistence of key components of the Chugach Alutiiq sociocultural system. We have corrected a typographic error in the sentence and have modified it to state the supplemental role of subsistence in less constant terms.

00101-044: It was not possible to mention all culturally important factors in all Alaska Native sociocultural systems affected by the TAPS renewal. The factors mentioned are simply illustrative, though the examples have been expanded (see Section 3.25.1.1.7). The EIS incorporates a number of references to traditional ecological knowledge. In addition, in an attempt to augment available data on traditional ecological knowledge, certified letters were sent in April 2002 to the Village of Eyak and the other 21 Tribes identified by the BLM as "directly affected," requesting information regarding traditional knowledge, including traditional ecological knowledge. To date, no response to those letters has been received.

00101-045: The text in Section 3.25.1.1.8 has been substantially revised to report both the perspectives of academic scholarship and some Eyaks, and the perspective of the Native Village of Eyak. Within the former perspective, the decline in Eyak demography and cultural continuity is noted. The contrasting Tribal perspective is now described, emphasizing the large membership (comprising Alaska Natives from many cultural groups) and the ambitious growth in Tribal programs.

00101-046: The Handbook of North American Indians and other references were used to provide basic information on the Eyak. We do not believe that the ethnicity of the authors of those references calls into question their utility or accuracy. The "Essential Information" source is an interview with members of the Native Village of Eyak. Additional sources, including the Native Village of Eyak website, have been used to augment the description of the Eyak found in the EIS. Students of Native American cultures have attempted to group sociocultural systems according to ecological regions and cultural similarity. The boundaries between such groupings are always somewhat arbitrary and are open to debate. Similarities observed between the Eyak and Northwest Coast cultures has resulted in most authorities grouping the Eyak with the Northwest Coast cultures. This does not preclude contact or trade with cultures in other areas. In fact, interaction between such culture areas is the norm. The statements regarding relationships between the Eyak and Tlingit in no way imply that the Eyak had no sociocultural system of their own. The description of the Eyak sociocultural system attempts to provide a brief overview of a complicated sociocultural system, and, as such, it was impossible to include all possible trade relationships with other peoples.

00101-047: The text and the associated sections of Table 3.25-2 have been revised to note that the 2000 Census identifies 368 Alaska Native residents in Cordova. This is the figure for persons identifying themselves as part or all Alaska Native. This text concerning the Eyak sociocultural system has been substantially revised to indicate that the figures cited in the comment derive from academic scholarship, in which language and blood quantum were emphasized in identifying Eyak cultural heritage. Within this approach, it is logical to conclude that Eyak cultural continuity is strongest when the Eyak language is learned and spoken. The contrasting perspective of the Native Village of Eyak is now described in the text, noting that the Tribe reports a membership of over 500, with many Alaska Native ethnicities; 100 members are recognized by elders as being of Eyak descent.

00101-048: A discussion of federally recognized Tribes has been added to Section 3.25, and mention of the federally recognized Tribe of Eyak is made in Section 3.25.1.1.8.

00101-049: Section 3.25.1.2 has been modified to acknowledge certain negative consequences of Alaska Native regional and village corporations.

00101-050: The political awareness and influence referred to in this section is awareness and influence in the Euro-American political system in which concentrations of population tend to wield more influence whether they be Native or non-Native. The section does not state that political awareness and influence came with sedentary villages, only that increased sedentism led to a concentration of awareness and influence. References to aspects of life in Koyukon Native villages are meant to be illustrative of those systems and are in no way meant to be demeaning of villages in other areas. The addition to Section 3.25 of discussions pertaining to federally recognized Tribes helps to ensure that the reader will recognize the existence and role of such tribes for all sociocultural systems considered. The extended discussion of subsistence, in both Section 3.24 and Appendix D, presents data showing which rural communities in the vicinity of the TAPS are more reliant on subsistence.

00101-051: Section 3.25.1.2 has been substantially revised to describe a more complex history of Alaska Native political self-assertion in the 20th century. The language cited in the comment has been deleted.

00101-052: The text in Section 3.25.1.2 has been revised as suggested in the comment.

00101-053: The EIS includes no discussion of inherent Indian sovereignty. A discussion of various aspects of Alaska Native organizational structure is included in Sections 3.25.1 and 3.25.1.2 for purposes of background, contrasting traditional and modern forms of sociopolitical and socioeconomic (in the case of corporations) organization. No mention in the EIS is made of Alaska Native sovereignty “emerging” with ANCSA, as the comment states, but rather of the village and regional corporations which indeed were created by that act. The text has been changed to explicitly note that ANCSA “did not terminate Alaska Native tribes nor eligibility for national programs intended to fulfill the federal trust responsibility to Native Americans.”

00101-054: The text in Section 3.25.1.2 has been substantially revised to note the earlier historic roots of Alaska Native political organization and land claims.

00101-055: The EIS does mention that Alaska Native regional corporations are represented among the most successful businesses in Alaska, and that Native corporations distribute monies to village corporations and individuals. There is no statement that large amounts of cash and land are distributed to individuals by these corporations.. That stated, Section 3.25.1.2 has been revised to clarify the role of ANCSA and the corporations that arose from it.

00101-056: The indigenous groups that occupied what is now the State of Alaska varied in their social organization and residence patterns. Most groups did follow a seasonal round that allowed for the patterned exploitation of subsistence resources as they became available. Whether one calls this seasonal occupation, or semi-nomadism is largely a semantic issue. The underlying principle is that the size of the group exploiting a resource and the length of their stay in a particular location was dependent upon the nature of the resource being exploited. None of these terms has any negative connotation, but each describes an efficient and long-lived subsistence pattern. Groups varied in the complexity of their political structures, but tended to be egalitarian. The DEIS does not imply that Alaska Natives had no internal political structures before 1936, only that the IRA formally incorporated tribal councils into the American legal framework and instituted American-style elections where they did not already exist. The text has been changed to note that the IRA was extended to Alaska in 1936 and to state "the Indian Reorganization Act of 1934 extended legal recognition of formally elected tribal councils."

00101-057: Section 3.25.1.2 has been revised, including deletion of the word "vestiges."

00101-058: Text discussing federally recognized Tribes has been added to Section 3.25.1. The EIS does not state that there is a relationship between federally recognized Tribes and either village or regional corporations, but rather that a given individual may have a relationship to multiple entities (Tribe, village corporation, and regional corporation). The text in Section 3.25.1.2 has been rewritten to clarify this point.

00101-059: Section 3.25.1.3 is intended to report some of the significant challenges confronting, and being addressed, in the Alaska Native community as a result of rapid cultural and technological change in the past several decades. This is consistent with efforts by AFN and other organizations to attract attention, and to promote funding for responses to these issues. The text throughout this section, and in the regional accounts of the preceding section, has been substantially revised to emphasize the importance of Alaska Native Tribes, regional Tribal associations, and Tribal Health Corporations in responding to these problems.

00101-060: Section 3.25.1.3 has been substantially revised to discuss the importance of political self-assertion and civic capacity in the ways the Alaska Native community is responding to the wide range of changes that have occurred in the past several decades. This includes significant growth in the general Alaskan population and economy, including resulting impacts on subsistence practices in the 21 communities (many of which are federally recognized Tribes) of interest in this analysis. The challenge is discerning which of those changes are reasonably attributable to TAPS, and which are results of the cumulative impacts examined in Section 4.7.8.

It is not the intent of the Section 3.25 to discuss subsistence issues, which appear in Section 3.24, "Subsistence."

00101-061: Section 3.26 has been revised to appropriately reflect Section 106 of the National Historic Preservation Act.

00101-062: Section 3.26 has been modified in response to the comment.

00101-063: Section 4.7.8.4 has been revised to discuss impacts to cultural resources in Prince William Sound due to the Exxon Valdez oil spill.

00101-064: The statement has been deleted from Section 3.26.

00101-065: The issues associated with the current information on cultural resources are included in Section 3.26. In addition, Section 4.3.22 has been modified to include a discussion of a programmatic agreement, currently in preparation, that will further clarify the process for considering cultural resources under the proposed action.

00101-066: Section 3.26 has been revised.

00101-067: The text in Section 3.26.2 has been changed to reflect the involvement of federally recognized tribes more accurately.

00101-068: It is true that the pipeline has not been nominated for listing on the National Register of Historic Places. However, TAPS's status as a unique engineering feat and its role in the development of Alaska during the final decades of the twentieth century make it reasonable that the pipeline could be determined eligible and be nominated for listing on the National Register in the next three decades (the period of the proposed action).

00101-069: The EIS focuses on elements of the TAPS that are within and adjacent to the pipeline corridor and which are entirely within the Valdez Coastal Zone at the southern end of the pipeline.

00101-070: There were extensive communications with Alaska Native Corporation and Tribes during the preparation of the EIS. To the extent that they affected land use, they are reflected in the document. For example, the Chugach Corporation and the Ahtna Corporation are among the referenced sources related to land use along the pipeline corridor.

00101-071: While recreational use may have increased in the Chugach National Forest generally, the EIS focuses on recreational uses within and adjacent to the TAPS pipeline corridor.

00101-072: As discussed in Section 3.29, the environmental justice assessment in this EIS is based on evidence of likely disproportionate high and adverse impacts to low-income and minority populations. The evaluation of environmental justice impacts involves all impact areas and all alternative actions (including those considered under cumulative impacts) examined in the document. The Native Village of Eyak evaluation of the assessment is noted.

00101-073: As discussed in Section 3.29, the environmental justice analysis considers impacts in all issue areas examined in the EIS, including subsistence. Moreover, Section 3.29 notes that subsistence is singled out in Executive Order 12898, and as such receives special consideration in the EIS. The evaluation of subsistence focuses on the 21 Tribes likely to be directly affected by the TAPS, as defined by the U.S. Bureau of Land Management. This list includes three villages located more than 200 mi from any part of the TAPS, and thus considers peoples located a relatively large distance from the pipeline, given the nature of likely impacts. Alaska Natives are among the groups that compose the "minority" category. The data used to identify minority peoples are from the most recent U.S. decennial census of population and housing, which was conducted in 2000, and hence is two years old but is the most recent available.

00101-074: The Executive Summary has been substantially revised.

00101-075: The BLM recognizes that there may be interactions between the TAPS and subsistence resources, including subsistence resources. The BLM also notes that current information does not show a relationship between TAPS and subsistence impacts. The BLM and State of Alaska within JPO are currently working with industry and others to develop a science-based approach to determine how TAPS and subsistence resources interact.

00101-076: The APSC has a number of training and education programs that highlight both the importance and requirements of protecting the environment, human health and safety, and cultural resources. The BLM will request that APSC continue to highlight to their staff and contractors the importance of taking Native values and Native subsistence activities into account.

00101-077: The aim of Section 4.1.5 is to summarize existing mitigations. The sentence following the quoted passage provides connections of the example stipulations with social issues.

00101-078: Section 30 of the Agreement and Grant of Right-of-Way for Trans-Alaska Pipeline may be found in Appendix B of the FEIS. To date, several claims have been made under Section 30. Although none have been awarded, this is not necessarily an indication that Section 30 is not being enforced in accordance with its original intent. Section 30 remains in place as a potential means of mitigating impacts to subsistence due to the TAPS.

00101-079: Commitments that are made by APSC or the TAPS Owners in accordance with specific requirements in the Federal Grant, for example Section 29, Training of Alaska Natives, and Section 30, Native and Other Subsistence, are enforced with the same authority as all other stipulations. Neither BLM nor the other JPO agencies are authorized to require or to enforce commitments that are made by APSC or the TAPS Owners directly with individuals or groups.

00101-080: The commentor is correct that Section 29 and the underlying Alaska Native Utilization Agreement relate to employment and training of Alaska Natives and do not require that the jobs be located in the villages for tribal members. Any modifications to Section 29 are beyond the scope of this EIS.

00101-081: While some North Slope examples of mitigation are used for illustration in Section 4.1.5, virtually all the measures apply to the TAPS in its entirety.

00101-082: NEPA guidance recommends that EISs tier off of previous studies to avoid redundant analyses.

The results of the analyses of similar development in similar sociocultural contexts are clearly relevant to the TAPS EIS. An additional sentence has been added to help establish the relevance of the North Slope inquiries with TAPS-related mitigation.

00101-083: Section 4.1.5 describes existing mitigating measures. As existing measures do not make geographic references to the regions of Alaska mentioned in the comment, the section cited similarly makes no such reference.

00101-084: The text in the EIS has been changed to reflect the fact that many subsistence activities have cultural significance to Alaska Natives, and are not necessarily replaced by greater participation in the market economy as personal income increases in Alaska Native communities, and that decreases in income do not necessarily affect the productivity of subsistence activities. The text in Section 3.24 (subsistence affected environment) also has been modified to discuss subsistence from a broader cultural perspective.

00101-085: The BLM believes that the statements presented in this EIS are not subjective, but are based on straightforward logic related to income, spending, and subsistence.

The text in the EIS has been changed in Section 4.3.19.7 to reflect the fact that many subsistence activities have cultural significance to Alaska Natives, that they are not necessarily replaced by greater participation in the market economy as personal income increases in Alaska Native communities, and that decreases in income do not necessarily affect the productivity of subsistence activities.

00101-086: The text in Section 4.3.19.7 of the EIS has been changed to reflect the fact that many subsistence activities have great cultural significance to Alaska Natives. These activities are not necessarily replaced by higher levels of participation in the market economy as personal income increases in Alaska Native communities, and that decreases in income do not necessarily affect the productivity of subsistence activities.

00101-087: The economic impact of the Exxon Valdez oil spill (EVOS), including the various compensation payments, is covered in Section 4.7.8.3, "Cumulative Impacts," of the FEIS. Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of EVOS on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00101-088: Impacts associated with tanker accidents are discussed under cumulative impacts (see Section 4.7.8.1), not normal operations under the proposed action (the section cited in the comment). In response to comments on the DEIS, the discussion of cumulative impacts on subsistence has been expanded to include persisting subsistence impacts on the five villages considered in this document that were directly affected by the Exxon Valdez oil spill. Pertinent Exxon Valdez Trustee Council-funded research has been cited in the EIS, most importantly the subsistence data collected for 1997 (through September 1998) and evaluations of persisting subsistence impacts (e.g., Fall 1999; Fall and Utermohle 1999; and Impact Assessment, Inc., 2001). The facilitation of funding of Tribes to conduct further research into continuing subsistence impacts of the Exxon Valdez oil spill is beyond the scope of this EIS.

00101-089: The DEIS sections on subsistence received many critical public comments, and as a result, have undergone substantial revision. A small number of additional sources were identified, including the map of Cordova subsistence use areas and North Slope studies of impacts on subsistence economies from oil development. Previous sources were considered more closely, as when time-series data were derived from the ADFG Division of Subsistence studies; and harvest permit data were broken down further to distinguish patterns of rural and non-rural residents. With additional analysis of this data, the EIS draws reasonable conclusions, on the basis of existing information.

00101-090: The primary point of this comment, concerning documented impacts of the Exxon Valdez oil spill is acknowledged, and the text summarizing this research has been expanded, in Section 4.7, "Cumulative Effects." The section cited in the comment focuses more specifically on routine operations within the TAPS right-of-6way itself, ending at the Valdez Marine Terminal. The quoted analysis of impacts is appropriate for the spill scenario at the Valdez Marine Terminal.

00101-091: Traditional ecological knowledge is considered throughout the FEIS, consistent with statements made during public scoping, viewing it as pertinent and relevant to the evaluation of TAPS-related impacts on subsistence as any other type of data. The FEIS does not discount traditional ecological knowledge. However, in noting the difficulty in assigning cause of subsistence impact, the FEIS shows reluctance in basing an assessment on this single source of information. In evaluating impacts to subsistence, the FEIS considers all pertinent data to provide a balanced treatment of the subject.

When the various sources of information suggest different conclusions, analytic judgment must be exercised. The intention of the document is to offer an explicit and transparent reasoning process so the basis for a judgment is clear.

As further evidence of the importance placed on traditional ecological knowledge by this project, it is worth noting that, in April 2002, EIS personnel contacted the 21 directly affected villages/tribes by certified mail to explore the acquisition of additional information, including traditional ecological knowledge pertaining to subsistence. Included among those contacted was the Tribal Council of the Native Village of Eyak. To date, no response to those letters has been received.

00101-092: Apart from the TAPS facilities themselves (such as pump stations and the pipeline itself), there effectively are no constraints to subsistence because of the TAPS. This contrasts with subsistence use areas that in some cases approach 18,000 square miles (in the case of Stevens Village). Section 4.3.20 has been revised to present existing constraints more clearly, and Appendix D now lists the sizes of subsistence use areas.

00101-093: None of the restrictions on subsistence activities due to the TAPS would affect more than 7.0 percent of a subsistence harvest area, less in many cases, for a total of five communities. None of the restricted areas has been shown to be a critical area for caribou migration, the example cited in the comment. Text has been added to Section 4.3.20 to provide additional detail on the restricted areas.

00101-094: Impacts associated with tanker accidents are discussed under cumulative impacts (see Section 4.7.8.1), not normal operations under the proposed action (the page cited in the comment). In response to comments on the DEIS, the discussion of cumulative impacts on subsistence has been expanded to discuss persisting subsistence impacts on the five villages considered in this document that were directly affected by the Exxon Valdez oil spill.

00101-095: The EIS focuses on those aspects of sociocultural systems most likely to be directly affected by TAPS renewal. Since the TAPS is already in place, the greatest effects would most likely be economic and on subsistence. Subsistence practices are intricately interwoven throughout Alaska Native sociosystems and cannot be seen as purely economic. Section 4.3.21.1 has been expanded to discuss other sociocultural impacts. Factors that affect subsistence are discussed as a part of a number of potential effects.

00101-096: Language has been added to Section 3.25.1.2 discussing federally recognized tribes, in addition to that already discussing Native regional corporations and village corporations.

The language in the EIS has been modified to note that public services and programs benefit many Alaska Natives, to remove the implication that all Natives benefit. The discussion in Section 4.3.21.1 already states that wage employment involves many Alaska Natives, thereby removing the implication that it is a benefit for all.

00101-097: The EIS refers to traditional Eyak culture, not to the modern Native Village of Eyak whose residents come from many traditional sociocultural systems. Sections 3.25.1.1.8 and 4.3.21 have been modified to clarify the role of, and composition of, the Native Village of Eyak.

The commentor is incorrect in stating that the Native Village of Eyak was never contacted in the preparation of this EIS. In fact the Native Village of Eyak was contacted by registered mail in April 2002 to solicit input regarding Alaska Native issues. No response was received from the Village. In addition, several other opportunities were provided to the Native Village of Eyak to provide information pertinent to the EIS at meeting explicitly held for EIS purposes (see Table 5.3-1).

00101-098: Federally recognized Tribes have been explicitly incorporated into the right-of-way renewal process since April 2001, through government-to-government consultations. Moreover, the National Environmental Policy Act process, which includes an explicit public scoping period prior to the preparation of an EIS and a public review of the draft EIS (the process currently under way) provides additional input to the document. Several Tribes, including the Native Village of Eyak, have expressed their positions about sociocultural impacts of the TAPS, and these positions have been (and are being) considered.

00101-099: The text in Section 4.3.22 has been changed.

00101-100: The primary point of this comment, concerning documented impacts of the Exxon Valdez oil spill (EVOS) is acknowledged, and the text summarizing this research has been expanded, in Section 4.7, "Cumulative Effects." Significant impacts were identified, particularly in the early years following the spill. However, the formal research on EVOS impacts on subsistence does not support the contention that "a generation of youth was denied the benefit of subsistence and traditional activities." Fall and Utermohle 1999 and Impacts Assessment, Inc. 2001 indicate that youth participation in subsistence and related cultural transmission activities rebounded within three to four years of the spill, and were largely reestablished by nine years after the spill.

Section 4.4.4.14 focuses more specifically on renewal of the TAPS ROW itself, ending at the Valdez Marine Terminal. The quoted analysis of impacts is appropriate for the spill scenario at the Valdez Marine Terminal.

00101-101: The EIS statement regarding the lack of "noteworthy negative sociocultural impacts" is an expression of confidence in the adaptability and vigor of Alaska Native cultures. The sociocultural systems of Alaska have proven themselves adept at responding to harsh and changing environmental conditions. It is expected that in the long term the basic fabric of the culture would not be harmed by a terrestrial oil spill. However, contamination from an oil spill is beyond traditional knowledge, and there would be short-term traumatic effects on Native communities. A discussion of sociocultural impacts of the Exxon Valdez oil spill has been added to Section 4.7.8.2 of the FEIS to provide a more complete appreciation of the effects possible. However, the terrestrial spills referred to in the comment would affect a far smaller area than the Exxon Valdez spill, and their negative consequences would be expected to be much less.

The commentor suggests that Alaska Native input is required in order to determine the degree of potential effect of the TAPS ROW renewal on sociocultural systems, and that EVOS Trustee Council sponsored research be continued in the EIS. The commentor was provided the opportunity for government-to-government consultation while the DEIS was being written, including an explicit invitation in April 2002 to provide traditional ecological knowledge, and did not respond. The DEIS considered several references sponsored by the Trustee Council, and the FEIS has added further references to this research.

00101-102: The text in Section 4.4.4.15 has been corrected to note the limited impacts on subsistence as well, which (in addition to cash economy) would have important sociocultural implications. The second quote of a partial sentence included in the comment left out some key components of that sentence, including the adaptability of sociocultural systems and the broad areas exploited for fishing. Adjustments, in sociocultural systems as a whole and subsistence strategies in particular, in response to shifting environmental challenges are commonplace. It would be a disservice to the sociocultural systems of rural Alaskans (as well as inaccurate) to suggest that despite a heritage of adaptation under particularly difficult conditions, they could not shift from one portion of their traditional fishing area to another portion of that area without experiencing sociocultural change.

00101-103: The commentor has omitted an important word from Section 4.4.4.15. The actual quote is "many sociocultural impacts would not be large or last a long time despite the large negative effect on local economies." This does not mean that there would be no large sociocultural impacts of some duration. Section 4.4.4.15 has since been revised to discuss the nature of likely impacts more thoroughly. Section 4.7.8.2 also has been revised to include a discussion of sociocultural impacts of the Exxon Valdez oil spill. Results of research funded by the Exxon Valdez Oil Spill Trustee Council was consulted during the preparation of the DEIS; additional references have been consulted in developing the FEIS.

00101-104: Any oil spill would generate a number of impacts. The EIS is obliged to consider both positive and negative impacts, which is what the section to which the comment refers contains. The receipt of cash for assistance in oil cleanup is based on the practice of the APSC and other companies (e.g., Exxon) of paying for such assistance, which is more historic or procedural than "scientific," per se. The impacts to recreation from a spill need not be larger or smaller than impacts to subsistence or any other impact area.

00101-105: Section 4.7.8.4 has been revised to include the impacts of vandalism on cultural resources that occurred during the Exxon Valdez oil spill cleanup.

00101-106: As stated in Section 3.29, Executive Order 12898 addresses disproportionately high and adverse human health or environmental effects. The effects of a terrestrial spill are not anticipated to produce high and adverse impacts, as discussed in the referenced section.

00101-107: Virtually all of the seven and one-half pages on environmental justice implications of spills in the EIS (Section 4.4.4.19) discuss negative impacts, some of them long-term. The text in which the EIS "highlight[s] short-term economics" comprises two sentences, in contrast to the volume of text just cited which discusses negative impacts, and does so explicitly to cover both positive and negative issues (as noted in the comment).

00101-108: Table 4.7-2 lists petroleum spills, including those associated with transportation, such as the Exxon Valdez oil spill (EVOS). The continuing impacts of EVOS were considered in assessing the impacts of the proposed action and other past, present, and future actions for the renewal period. The historic impacts of EVOS are included in the discussions of the affected environment in Section 3 of the TAPS EIS.

00101-109: Section 4.7.4.5 discusses the size and economic base of the larger communities in three geographic regions examined under cumulative impacts. It does not discuss their organization or political structure, and as a consequence discussion of tribal councils is not germane. As noted in the section , only communities with a population greater than 200 are discussed individually in this summary (which would exclude Chenega and Tatitlek). Section 4.7.4.5.3 does mention the federally recognized Native Village of Eyak, but only in the context of its inclusion in the larger community of Cordova. A discussion of federally recognized Native Villages and Tribes has been added to Section 3.25.1.2.

00101-110: The DEIS follows the results of 2000 census in determining the population of Cordova and the number of Alaska Natives in Cordova (see Table 3.29-1). Text in Section 3.25.1.1.8 has been changed to note the approximate membership of the Native Village of Eyak.

00101-111: Chenega and Tatilek have been added to the list of communities serviced by the Alaska Marine Highway (Section 4.7.4.6.4).

00101-112: The primary source document for the language in Section 4.7.4.7.1 is the "Final Report to the Governor," by the Alaska Commission on Rural Governance and Empowerment, June, 1999; specifically, Part Two, Alaska Natives, Local Governance, and Government Relations. While this document makes specific reference to treaties with Native Americans, it may be using the term in a collective rather than an individual sense. In addition, the document specifically addresses the complex situation in Alaska involving tribal governments and regional organizations. Section 3.25.1.2 has also been changed to note that ANCSA did not affect the political status of Alaska Natives.

00101-113: As described in the DEIS at 4.3.8.4, TAPS-Associated Marine Traffic, the number of tanker visits to the Valdez Marine Terminal is estimated to decline from 496 in 2004 to 82 in 2034. The text at 4.7.7.4 reflects that significant decline and the assumption that non-tanker traffic will not increase proportionately.

00101-114: The DEIS sections on subsistence and socio-cultural systems received many critical public comments, and as a result, have undergone substantial revision. A small number of additional sources were identified, including the map of Cordova subsistence use areas and North Slope studies of impacts on subsistence economies from oil development. Previous sources were considered more closely, as when time-series data were derived from the ADFG Division of Subsistence studies; and harvest permit data were broken down further to distinguish patterns of rural and non-rural residents.

It is important to also note that the development of this EIS included several rounds of consultation with Tribes and the general public, including requests for additional information. In April 2001, a meeting was held with the Alaska Federation of Natives and the Tanana Chiefs Conference to identify information and exchange perspectives to ensure a thorough analysis of subsistence. The meeting was useful, and additional resources were identified, though these did not include new quantitative data. In the same month, EIOS personnel contacted the 21 directly affected villages/tribes by certified mail to explore the acquisition of additional information, including traditional ecological knowledge pertaining to subsistence. The Native Village of Eyak was among the groups contacted. To date, no responses to these letters have been received.

With this additional analysis, the EIS is able to draw reasonable conclusions on subsistence impacts on the basis of existing information.

00101-115: This comment misstates the conclusions drawn in Section 4.7.8.1. The sentence quoted in sections by the comment indicates that although scientific evidence indicates that human activities can change the movement patterns of caribou, disruption of movement patterns at a large scale does not appear to have occurred. Thus, the EIS concludes that there has been no alteration of the movement of the entire herd; the significance of an impact that appears not to have occurred is not an issue.

00101-116: The EIS assumes that residents of Alaska in the Prince William Sound area would receive annual payments from the permanent fund dividend, in accordance with the state law providing "additional cash." As the permanent fund dividend depends in part on oil revenues, the relationship to the TAPS and other oil activities seemed apparent (see Section 3.23). The EIS also assumed that residents of the Prince William Sound area are employed by APSC, providing additional cash in the form of direct wages and remittances (see Section 3.23.3.4).

The comment challenging the assertion that subsistence practitioners in Chenega Bay and Tatitlek could avoid spill areas appears to be based on the assumption that a spill the size of the Exxon Valdez oil spill would occur. Although the EIS views a spill of such magnitude to be highly unlikely, it does acknowledge that such a spill could occur. The text in Section 4.7.8.1 has been revised to reflect this and the potentially severe impacts to subsistence that could accompany such a spill.

00101-117: The referenced sentence in Section 4.7.8.1 has been corrected.

00101-118: Section 4.7.8.1 has been revised to discuss the nature of cumulative impacts in greater detail, including spills that would be included under cumulative impacts. For spills occurring under anticipated and likely probabilities, the relatively small area affected would make avoidance of the spill area a realistic response.

00101-119: The EIS compares Alaska Natives with various components of the American population, in part to make certain points. In using Alaska statistics for the basis of comparison, the aim is to focus on a population that in a sense lives in a broadly similar environment and encounters similar cumulative urban and rural conditions.

00101-120: The EIS does not make the argument that because the Chugach Alutiiq and Eyak have been subject to considerable cultural change over the past two centuries that the continued operation of the TAPS would have little effect on sociocultural systems of these communities. It makes the point that because of this contact that the overall negative effect would be less than for cultures that have had less contact with Euroamerican culture over a shorter time. The Alutiiq and Eyak have had more time to adapt to Euroamerican industrial culture, so continued contact would likely be less traumatic than for cultures where the TAPS was a sudden and new intrusion of industrial culture. In this section the TAPS must be considered in a wider context of Euroamerican industrial undertakings, all of which affect the cultures of Alaska Natives. The increment of affect that can be attributed to the TAPS renewal is difficult to estimate, but it is likely to be smaller in this context than in a context of fewer similar undertakings. The second point made in this section is that there are fewer TAPS activities in the Prince William Sound area than in the interior or the North Slope, making the increment of negative affect attributable to the TAPS alone smaller than elsewhere along the TAPS right-of-way.

00101-121: Section 4.7.8.2 has been revised to discuss possible impacts of tanker spills in greater detail.

00101-122: Additional consultation with ADFG and the US Forest Service resulted in access to GIS data documenting the traditional subsistence use area of Cordova residents (including Eyak Tribal members) based in interviews conducted by ADFG in the late 1980's. This subsistence use area is now included in Map 3.24-1, and in more detail in Map D-1.

00101-123: Section 4.7.8.4 has been revised.

00101-124: The first sentence notes that the identification of environmental justice impacts relies on the identification of high and adverse impacts, which are not in evidence as cumulative impacts. The minority status of the Native Village of Eyak is not at issue here.

00101-125: Section 4.8.4 in the EIS has been revised to provide potential mitigation actions.

00101-126: The EIS considered documents and other sources of information pertinent to the evaluation of impacts under the proposed action and alternatives. Many of these cover the same geographic areas, and topics, covered in the referenced reports. For instance, the cultural resources assessment examined the cultural resources database maintained by the State Historic Preservation Office, which is the central repository for such information in the state of Alaska (see Section 3.26). In general, the BLM has maintained government-to-government consultations explicitly focused on the TAPS ROW renewal beginning in April 2001 (see Section 5.3, Table 5.3-1), both to comply with the direction and spirit of Executive Order 13175 and to provide ample opportunity for federally recognized tribes to direct attention to issues of particular concern and material that may support their concerns.

00101-127: The BLM team conducted extensive government-to-government planning and implementation activities. The reader is directed to Section 5.3 in the FEIS.

00101-128: A wide range of historic and contemporary scholarship, along with local testimony, has been examined to develop the description of subsistence patterns and analysis of impacts. With additional analysis of these sources, the FEIS is able to draw reasonable conclusions on subsistence impacts on the basis of existing information.

00101-129: The Native Village of Eyak was incorporated in government-to-government consultations throughout the right-of-way renewal period, beginning with a registered letter in April 2001 noting the onset of the renewal process. More recently, a registered letter, dated 3 April 2002, was sent to the Native Village of Eyak requesting that it provide traditional ecological knowledge about subsistence and traditional information about cultural resources. To date, there has been no response to the second letter (which our records show arrived on 10 April 2002).

00101-130: Comments received during scoping are aggregated into a record of public scoping and are used to frame the issues and the analyses in the DEIS. Scoping comments are not listed and identified individually or responded to in the DEIS. Comments received on the quality of the analysis in the DEIS are addressed specifically in the FEIS and may result in text changes to the FEIS as well.

00101-131: In response to comments on the DEIS, available subsistence-harvest data for a broad range of resources (reported as per capita pounds harvested) for the five villages directly affected by the Exxon Valdez oil spill, and accompanying text, have been added to Section 3.24.2.4. Those data show harvest levels for all years available, both before and after the Exxon Valdez oil spill.

00101-132: The reader is directed to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00101-133: Section 5.3 in the FEIS contains a complete description of the government-to-government process that the BLM followed.

00101-134: The BLM produced a "Summary of Scoping" document and sent it to Eyak and other Tribes in November 2001. The settlement claim for punitive damages related to the Exxon Valdez oil spill in Prince William Sound is currently in litigation and is outside the scope of the environmental impact statement process for the renewal of the Federal Grant of Right-of-Way.

00101-135: Government-to-government consultation is presented in Section 5.3 of the FEIS.

00101-136: The BLM and member agencies of the JPO are committed to ongoing government-to-government consultations for the remainder of the renewal project and welcome invitations to participate in meetings and dialogues with Native Tribes.

00101-137: Section 5.3 of the FEIS contains a detailed description of the extensive government-to-government process followed by the BLM. The BLM welcomes input on this process.

00101-138: The BLM is fully aware that these Tribes are federally recognized Tribal governments. Please see the expanded government-to-government background material contained in Section 5.3 of the FEIS. Text discussing federally recognized Tribes has also been added to Sections 3.25.1.1 and 3.25.1.2.

00101-139: A Programmatic Agreement is being developed separately from the EIS to streamline the required Section 106 process. Federally recognized Tribes are being consulted.

00101-140: The Alaska Department of Community and Economic Development states that "Eyak was first reported in 1869 as 'Hyacks,' an Alutiiq village." (see http://www.dced.state.ak.us/cbd/commdb/CF_BLOCK.cfm). The EIS corrected the misstatement that Eyak is a separate community, as it was in the past, bringing the text in line with a statement (later in Section D.2.3.4.2, the section to which the comment refers) that Eyak was annexed by Cordova in 1992. Section D.2.3.4.2 has been corrected to identify Eyak as the Native Village of Eyak, a federally recognized Native village within the city boundaries of Cordova that is designated by the U.S. Bureau of the Census as an "Alaska Native Village Statistical Area." The section to which the comment refers does not imply that there is a separate economy of Eyak. It does state, "Eyak has been more peripheral to development in eastern Prince William Sound than Cordova," which is consistent with the data we compiled for the area.

00101-141: Section D.2.3.4.2 in the FEIS, which has been revised, describes the contemporary community of Cordova and the village of Eyak. It is not intended to discuss the traditional range of the Eyak people, which is summarized in Table 3.25-2.

00101-142: Section D.2.3.4.2 in Appendix D in the FEIS (formerly Section D.3.3.7 in the DEIS) has been revised to clarify that separate subsistence harvest information was not presented for Eyak in the Alaska Department of Fish and Game data.

00101-143: Data presented in the 2000 decennial census of population and housing indicate an overwhelming economic importance of wage labor in Cordova. The data presented indicate high subsistence participation rates for the households surveyed, but do not contradict the sentence cited in the comment. That stated, the sentence in Section D.2.3.4.2 of the FEIS has been revised to avoid any interpretations that might be considered inaccurate.

00101-144: Appendix D (Section D.2.3.4.2 in the FEIS) has been changed to separate Cordova from the Native Village of Eyak.

00101-145: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue dialogue with the Bureau of Land Management.

00101-146: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue a dialogue with the Bureau of Land Management.

The EIS addresses subsistence impacts anticipated under the proposed action and other alternatives considered (see Sections 4.3.20, 4.4.4.14, 4.5.2.20, 4.6.2.20, and 4.7.8.1). It also considers subsistence impacts explicitly under ANILCA in Appendix E.

00101-147: The FEIS provides a substantially revised analysis of subsistence data, focused on communities, and organized within ecological zones. A wide body of scholarly research and testimony was examined in preparing this analysis. The EIS personnel examined more closely several studies concerning impacts to subsistence from oil development on the North Slope, as well as the summary reports concerning nearly a decade of research on consequences of the Exxon Valdez oil spill on the subsistence practices of the affected villages in Prince William Sound and Lower Cook Inlet, authored by Fall and Utermohle, Jorgenson, and Impact Assessment, Inc.

In the organization of the Environmental Consequences chapter, the analysis of impacts to subsistence and socio-cultural systems in Sections 4.3 – 4.6 is limited to consideration of renewal of the TAPS right-of-way, itself. On note, the geographic scope of the TAPS in these sections, ends with the Valdez Marine Terminal. In Section 4.7, cumulative effects of past, present, and reasonably foreseeable activities are considered. Specifically, continuing exploration and oil field development on the North Slope, and marine transport of oil from Valdez to market is added to the analysis. In Sections 4.7.8.1 and 4.7.8.2, a more thorough discussion of impacts from the Exxon Valdez oil spill is now included.

00101-148: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue dialogue with the Bureau of Land Management.

00101-149: The reader is directed to the discussion of escrow funds found in Section 2.5.

00101-150: The Bureau of Land Management is the lead federal agency for the preparation of this EIS. Regardless of the assistance provided in the preparation and review of the EIS, the BLM is responsible for its content.

00101-151: Thank you for your comment.

00101-152: The Bureau of Land Management is the lead federal agency for the preparation of this EIS and has consulted with affected Tribal and Native organizations throughout the TAPS ROW renewal and EIS process. Government-to-government consultation procedures in accordance with Executive Order 13175 have been followed. See Section 5.3 in the FEIS. Regardless of the assistance provided in the preparation and review of the EIS, the BLM is responsible for its content.

00101-153: Hearings related to Section 810 of ANILCA were held in accordance with required procedures. As the lead federal agency associated with this EIS, the BLM established government-to-government exchanges with all tribal governments in Alaska and more focused exchanges with 21 tribes directly affected by the TAPS. These 21 communities received more detailed mailings explaining the proposed ROW renewal, the EIS process, and the various sources of additional information. Meetings were held with all Tribal organizations and Native groups that requested them to discuss the EIS process and related issues in greater detail. At the meetings, specific emphasis was placed on how Tribal organizations and Native groups can participate effectively in the EIS and ROW renewal processes. Detailed and timely information about hearing schedules was provided directly to Native organizations and the media. BLM had no control over when the media chose to publish that information. While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to tribal governments and Native groups. The process of government-to-government consultation allows these organizations to continue dialogue with the Bureau of Land Management and for their comments to be considered in the Record of Decision.

00101-154: All comments on the DEIS, including those provided by the Native Village of Eyak, have been systematically evaluated and responded to in the process of preparing the FEIS. Any comments pertinent to the evaluation of issues defined under the Alaska National Interest Lands Conservation Act Section 810(a) have been incorporated in that evaluation.

00101-155: Comments received during scoping are aggregated into a record of public scoping and are used to frame the issues and the analyses in the DEIS. Scoping comments are not listed and identified individually or responded to in the DEIS. Comments received on the quality of the analysis in the DEIS are addressed specifically in the FEIS and may result in text changes to the FEIS as well.

00101-156: Access, land use, and trespass issues related to Native lands are addressed in the EIS in Section 4.3.23.1, “Land Use.” The issue of financial compensation for use of Tribal lands is outside the scope of this EIS, which addresses the use of lands under the jurisdiction of the BLM.

00101-157: The reader is directed to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

Document previously Faxed to: 866-542-5904 on 8/20/02

CHENEGA I.R.A. COUNCIL

Chenega IRA Council
Comments on Draft EIS TAPS Review
August 20, 2002

1. Requesting 45-day extension on the TAPS right of way renewal comments on draft EIS. 102-1

2. Section 3.11.5 Exxon Valdez Spill
Scientifically supported data gathered by Auke Bay Laboratory's '01 survey, which stated that, "Subsurface oil was found at a lower tide height than expected (between 0 & 6 feet)… This is significant because the pits with the most oil were found low in the intertidal zone, closest to the zone of biological reproduction and indicate that our estimates are conservative at best." (See: Auke Bay Laboratory, NOAA, AFSC Quarterly Report, The Exxon-Valdez Oil Spill: How Much Oil Remains, July-Aug-Sept. 2001.) Chenega believes that a significant amount of crude oil still remains in the Prince William Sound. This section speaks only minimally to the most recent data collected. 102-2

3. Section 4.2.2.6.3 Pump Station upgrades and Valdez Marine Terminal Modifications
Discusses an engineering study for potential facility upgrades, which would include the removal of two berths. Section talks about adding automated controls and eliminating pump stations. This is an inadequate analysis. The upgrades and changes discussed in this section are not clearly defined. We believe that automation will increase the response time should a major spill occur. 102-3

4. 4.3.19.7 Subsistence
States: Decline in permanent fund. Claiming that there will be more people, but less oil production, therefore, less revenue.

   ROW benefits for access to subsistence areas are likely to be reduced due to increased security. More restrictions on use likely would apply to users.

   Makes note of TEK to list potential negative impacts. It is not clearly defined how TEK will be gathered and used. There are concerns regarding public release of sensitive cultural data, and that the TEK is given appropriate weight in the decision making process. Tribal participation and consultation is needed in this process. 102-4

5. 4.7.6.6 Physical Marine Environment
Describes Prince William Sound tidal currents and wind directions as they would apply to different spill scenarios. NOAA and the University of Alaska have substantial data on tidal action, wind and currents within and surrounding Prince William Sound. It is clear to us that any spill of significance within and near the Sound will eventually impact a large area of the sound due to these natural processes. A more detailed analysis of spill scenarios in different locations within the Sound needs to be conducted. Prevailing winds and tidal currents would bring the oil to the Chenega area whether oil is spilled in eastern or central Prince William Sound. (Royer,T.C. J.A. Ver Mersch, T.J. Weingartner, H.J. Niebauer, R.D. Muench. 1990 Ocean Circulation Influencing Exxon Valdez Oil Spill Oceanography V3, 3-10. Galt, J.A. W.J. Lehr, D.L. Payton. 1991 Fate and Transport of Exxon Valdez Oil Spill. Environmental Science and Technology, Volume 25, 202-209. 102-5

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6. 4.7.8 Social Systems, 4.7.8.1. Subsistence - Discussing potential cumulative impacts upon.
   a. Statement: "Larger amounts of cash would probably be available to individuals pursuing subsistence activities enabling them to purchase improved subsistence - related technologies (though the precise impact of cash or subsistence activity has not been measured)." Where does this assumption of larger amounts of cash come in when above it states that there will be decreased revenues of permanent fund, etc.?
   b. Discusses cumulative impacts upon subsistence, and again find a statement: "Improved subsistence by enhanced travel to and from subsistence areas, increased harvest levels or efficiency, or both through the availability of additional cash." And "improved sport harvests by enhanced travel to and from hunting and fishing areas, increased harvest levels, increased opportunities…" Again, where is the extra cash assumption coming from? If we have more restricted travel because of security issues, more competition from increased access into the Sound, less revenue, etc., wouldn't that equal less subsistence opportunity, less cash, etc.? 102-6

7. Appendix D. 3.3.4. Chenega Bay
   A description of the community, subsistence resources and subsistence gathering areas. *The Alaska Fish & Game map utilized in this section is incomplete, not dated and not approved by Tribal Council.* The Chenega IRA Council has identified the traditional subsistence resource areas. Due to concerns regarding FOIA and the release of sensitive cultural information, the Council hesitates to publicize this information. 102-7

8. Cultural section is poorly addressed. We suggest that a meeting with the DEIS writer to more adequately address native concerns. 102-8

9. Public oversight. There is concern that PWS/RCAC may not adequately offer a forum that addresses all public entities. Additional seats, or alternative structure is suggested in order to ensure that all parties are heard equally. 102-9

10. Please see attached Chugach Regional Summit Resolution 01-01 on Natural Resources. 102-10

11. DEIS does not adequately take into account mandates under Section 30, referring to cumulative environmental damages. 102-11

12. There has been a trend lately of cost reductions, which results in less drills, meetings, maintenance etc. How can TAPS ensure adequate maintenance, spill response and operations when downsizing ALYESKA? 102-12

Larry Evanoff, Tribal Council President

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Responses for Document 00102

00102-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue dialogue with the Bureau of Land Management.

00102-002: The FEIS states that certain parts of Prince William Sound contain bottom sediments contaminated with hydrocarbons derived from the Exxon Valdez oil spill (Section 3.11.5.2).

00102-003: Response time would not be allowed to change form the current required times if any upgrades are made at pump stations or the Valdez Marine Terminal.

00102-004: Traditional ecological knowledge (TEK) was one of several sources of information used in the analysis of subsistence impacts (Section 4.3.20). Sensitive or confidential information was noted used in preparing the FEIS.

00102-005: We have a response form Tomasko that covers the extent of spill area in PWS (a similar comment came from RCAC, Eyak, or Chugach).

00102-006: Section 4.7.8.1 has been revised to more clearly explain possible relationships between economic factors of a cash economy and subsistence activities.

00102-007: Thank you for your comment.

00102-008: Sections 3.2.6 and 4.3.22 have been revised.

00102-009: The status of RCAC is beyond the scope of the EIS.

00102-010: Thank you for your comment.

00102-011: Section 30 remains in full effect. The cumulative analysis presented in section 4.7 analyzes impacts on the North Slope, the pipeline ROW and surrounding region, Prince William Sound, and tanker traffic issues in the Gulf of Alaska and Pacific Ocean. Impacts to subsistence are included in all the cumulative analyses.

00102-012: The BLM and member agencies of the JPO enforce all aspects of the Federal Grant independently of business decisions made by APSC. This means that all regulatory and legal requirements are enforced at all times. APSC has the ability to modify employment and capital expenditure decisions related to pipeline operations. The BLM and JPO review these plans, but can not regulate business decisions made by APSC.

00103

BLM's
Trans-Alaska-Pipeline System
Right-of-Way Renewal
Public Comment

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Fish, Clean Water, Health
are sustainable
if there is proper maintenance and monitoring of the TRANS ALASKA PIPELINE

It's no big secret that Alaska has undergone drastic changes in the climate and permafrost, since construction of the pipeline began 30 years ago.

- → Maintenance of the pipeline needs to be increased now – not cut back. 103-1
- → Swift-water oil recovery procedure and equipment need to be developed.
- → Oil spill response equipment should be stored at every river crossing.

We wish to see the formation of a CITIZEN'S PIPELINE MONITORING GROUP to allow the people of Alaska to oversee the condition and maintenance of the pipe and ensure the protection of our land. This is such a serious situation that it cannot be left solely up to the oil companies to police themselves. 103-2

OIL Spills Happen
WE DEMAND Responsible PROTECTION 103-3

NAME: CARA JOHNSON
ADDRESS: 1229 G St.
Anchorage AK 99501

Responses for Document 00103

00103-001: Under the Federal Grant, APSC is responsible for maintaining and operating TAPS safely and in a manner that is sufficiently protective of public safety and the environment. (See Grant Stipulation 1.21.1.) Except for contingency planning where Alaska regulations specifically call for an evaluation of the adequacy of resources (equipment as well as personnel) by regulatory authorities, APSC alone has the responsibility for developing appropriate management practices and operating procedures and committing adequate resources to successfully implement those systems. However, in its oversight capacity, the JPO does have the opportunity to evaluate the adequacy of APSC's operating practices and does consider resource commitments (both equipment and personnel, including levels of training) as part of the root cause analyses it performs for all identified operational deficiencies. The JPO also has authority to require APSC to develop, and submit for JPO approval, a corrective action plan that may also include implementing resources. It is inappropriate for the JPO to direct the application of specific types and amounts of resources for TAPS operations. APSC retains the sole responsibility for committing sufficient and appropriate resources to meet its obligations under the Federal Grant and its stipulations.

The warming in Alaska in the last several decades is recognized. Evidences of warming in areas surrounding Alaska, including the Arctic Sea, as well as air temperatures, permafrost temperatures, and field observations in thermokarst lakes and glaciers are presented in Section 3.12.7.

Monitoring for potential impacts from changes brought about by climate change is discussed in Section 4.1.3.2.1. The adaptive nature of the JPO's oversight authority allows the JPO to issue directives to APSC that could introduce new monitoring or technical requirements in the face of changing ambient conditions. See Section 4.1.1.2.

Finally, the JPO and APSC have entered into memoranda of agreements committing APSC to the use of reliability centered maintenance (RCM) protocols to form the basis of its maintenance decisions. See Section 4.1.1.7.

00103-002: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

The TAPS Oil Discharge Prevention and Contingency Plan for the pipeline (C-Plan), prepared by APSC (2001g—see Section 3.30 of the FEIS for the reference), provides for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline, including at river crossings.

The C-Plan is updated periodically and lessons learned from actual occurrences as well as from regular exercises conducted along the pipeline are incorporated into the C-Plan. In addition, the C-Plan is reviewed annually by BLM, every three years by ADEC, and every five years by DOT. EPA also reviews the plan as it applies to pump stations. As part of this process, APSC and the federal and state agencies with oversight responsibilities for TAPS make sure that the appropriate emergency response equipment and personnel are made available along the TAPS.

Response crews and equipment for initial deployment are stationed at Pump Station 9, Glennallen, Pump Station 12, and Valdez. The entire region crossed by the pipeline has been characterized with respect to the potential flow of spilled oil. Appropriate containment tactics are described in the C-Plan with site-specific descriptions for each identified containment site. For example, the Region 5 plan, which contains all contingency areas that could affect the Copper River, lists 12 contingency areas and 38 segment areas. Each of these 38 segment areas lists priority control actions and specific containment instructions. Each regional plan includes tables detailing materials and equipment available for oil spill response at all stations and containment sites.

The reader is also referred to Section 4.4.4.3 where spill planning, response, and mitigation for the Copper River Drainage are discussed (see the text box, "Oil Spill Planning for the Copper River Drainage").

00103-003: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

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BLM TAPS Renewal
Argonne National Laboratory EAD/900
9700 S. Cass Avenue
Argonne, IL 60439

August 19, 2002

To Whom It May Concern,

Attached are 100 signatures collected at the Tanana Valley State Fair in Fairbanks Alaska. These signatories all agree to the following seven statements and insist that they should be included in the conditions for the renewal of the TAPS Operational Lease.

- The grant lease should establish a citizens oversight group (COG) funded by the TAPS owners through the Department of Interior. 104-1
- TAPS dismantling, removal and restoration (DR&R) funds should be immediately placed in an escrow account. 104-2
- Grant and lease renewal should be made conditional upon satisfactory completion of an immediate comprehensive independent field audit, as well as an independent technical review and field audit every five years. 104-3
- TAPS should be transferred to a single responsible managing party with no North Slope production. 104-4
- A TAPS employee concerns program should be incorporated into lease and right-of-way renewal to ensure critical problems are adequately addressed to prevent spills. 104-5
- Stipulations attached to the original federal and state Grant and Lease agreements should be carefully reviewed to ensure that they reflect a) scientific and technological advances during the last three decades and b) experience with the operation of TAPS. 104-6
- The public comment period must be extended by at least 45-days to ensure ample time for meaningful input. 104-7

These stipulations must be included in the conditions for the renewal of the TAPS Operational Lease to ensure the safe, reliable continued operation of the Trans-Alaska Pipeline System.

Sincerely,

David Shaw

David Shaw
3124 Goldhill Road
Fairbanks, AK 99709
hillsend@mosquitonet.com

Petition for Conditions of TAPS Lease Renewal

We, the undersigned insist up on the following conditions for the renewal of TAPS operational Leases:

- The grant lease should establish a citizens oversight group (COG) funded by the TAPS Owners through the Department of the Interior.
- TAPS dismantling, removal and restoration (DR&R) funds should be immediately placed in an escrow account.
- Grant and Lease renewal should be made conditional on satisfactory completion of an immediate comprehensive independent field audit, as well as an independent technical review and field audit every five years.
- TAPS should be transferred to a single responsible managing party with no North Slope production.
- A TAPS Employee Concerns Program should be incorporated into lease and right-of-way renewal to ensure critical problems are adequately addressed to prevent spills.
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	Name	Address	Date
1.	Carla Von Ron Geldien	1033 Lathrop Fbks, AK. 99701	8/4/02
2.	Margaret Eagleton	2682 Gold Hill Rd Fbnx, AK 99709	8/4/02
3.	Kenny Huber	POBox 81936 Fbx 99708	8/4/02
4.	GERALD STINSON	109 INA FBKS. AK. 99701	8/4/02
5.	Karen Stern	1070 Amanita Fbks Ak	8/5/02
6.	Karlan Bachmann	1150 Skyline Dr. Fbks, AK 99712,	8/5/02
7.	Mary Clare Andrews	1150 Skyline Dr, Fbks, Ak 99712	8/5/02
8.	Janice Riley	209 Bentley Dr. Fbks AK 99701	8/5/02
9.	Patricia Stark	P.O. Box 82525 Fbks AK 99708	8/5/02
10.	Douglas Leggett	209 Second Ave Fbks AK 99701	8/5/02
11.	Ellen Olson	2295 Stevens Ave Fbks AK 99701	8/4/02
12.	Douglas Peterson	P.O Box 61468 Fairbanks Ak 99706	8/5/02
13.	John Hagey	POB 75198 Fairbanks AK 99707	8/6/02
14.	Sonia Mazeyrelk	PO Box 75198 Fairbanks, AK. 99707	8/6/02
15.	Odin	4222 Resurrection Dr Anch. AK 99504	8/6/02
16.	MARTHA COMMER	PO Box 74908 FBK 99707	8/6/02
17.	Heather Reichenberg	2685 Fairbanks, AK 99707	8/6/02
18.	Cynthia Dahlen	PO Box 78 Ester 99725	8-6-02
19.	Charlotte Baslan	PO Box 78 Ester 99725	8-6-02
20.	SANDRA DAUENHAUER	POB 418 ESTER 99725	8/6/02

Petition for Conditions of TAPS Lease Renewal

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	Name	Address	Date
1.	Hilmar A. Maier	2140 Twin Flower DR Fbk. 99709	6/Aug/02
2.	Michelle DeCorso	PO BOX 162 McGrath, AK 99627	6/Aug/02
3.	Mark DeCorso	PO Box 162 McGrath AK 99627	6/Aug/02
4.	Valerie Barber	Po Box 84442 Fbx AK 99708	6/Aug/02
5.	Mary Hallock	455 Marshall Dr Fairbanks	8/6/02
6.	Betty Connor	1540 Bluegrass 99709	8/6/02
7.	Bob Connor	1540 Bluegrass RD 99709	8/6/02
8.	[illegible]	1681 WOLVERINE LA. 99709	4
9.	Alice Mural	1605 CARR Fairbanks AK 99709	8-7-02
10.	LONA FAY BARRICK	3518 ROSIE CREEK RD FBKS. 99709	8.7.02
11.	Nils Kopperud	710 Chena Ridge 99709	8-7-02
12.	Dorothy S Thompson	P.O. Box 80368 Fairbanks AK 99708	8/7/02
13.	L.M. MUKT	300 Howland Rd. #33, FBKS., AK 99712	8/7/02
14.	Mrs. Merle A. Ames	c/o ACC - P.O. Box 71693 Fairbanks, Alaska 99707	8/7/02
15.	Nancy McGuire	PO. Box 56089 North Pole AK 99705	8-7-02
16.	Trista Saunders	PO Box 160062 Two Rivers AK, 99716	8-7-02
17.	Alex Rhody	1222 5th Ave FbKS, AK, 99701	8-7-02
18.	Sandra Wildfeuer	PO Box 85006 FBKS 99708	8-7-02
19.	Natalie Mayer	PO Box 74317 Fbks 99707	8-7-02
20.	Lacy Durham	P.O. Box 438 Healy, AK 99743	8-7-02

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	Name	Address		Date
1.	Jess Peña	[redacted] Jack st Fairbanks AK 99709		8/07/02
2.	A. Strobell	PO 83322	Fairbanks AK 99708	8/7/02
3.	Emily Sousa	1485 Ithaca Rd.	Fairbanks AK 99709	8/7/02
4.	Jennifer Swierk	2002 cuur Ave	Fairbanks AK 99709	8/7/2002
5.	Rena Coghill	160 city Lights Blvd	99712	8/7/2002
6.	Yvonne Wilder	200 8th Ave	Fairbanks 99701	8/8/02
7.	HERMAN FORSCH JR.	P.O Box 406	ESTER, AK 99725	8/8/02
8.	Sheryl Stevens	PO Box 16083	Two Rivers, 99716	8/8/02
9.	[illegible]	901-7th Ave.	FBX. 99701	8-8-02
10.	C Delcamino	PO Box 83369	99708	8-8-02
11.	Shannon Hamel	PO Box 70905	Fbx 99707	8-8-02
12.	Carrie Nash	2140 Sojourn Lane	Fbks 99709	8-8-02
13.	Lee Nash	"	"	8-8-02
14.	Tom Dolan	193 Carol Dr.	Fairbanks AK 99712	8/8/02
15.	Julie Maier	2140 Twin Flower Dr	Fbks, AK 99709	8/08/02
16.	VALERIE BLAJESKI	P.O. BOX 58673	FBX AK 99711	8/8/02.
17.	MATHEW CASORT	510 YAK RD #B5SA	FBKS AK 99709	8/8/02
18.	April Moore	1027 9th Ave,	Fbx 99701	8/8/02
19.	Carolyn Kremers	PO Box 84223	Frbx, AK 99708	8/8/02
20.	Susan Todd	Po Box 85059	FBX 99708	8/8/02.

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	Name	Address	Date
1.	IAN Frilani	P.O. Box 80448 FB AK 99708	8/8/02
2.	Ronald D. Ellingsworth	POBox 57402 North Pole, AK 99705	8/8/02
3.	Pamela A. Miller	PO Box 101811 Anchorage AK 99510	8/8/02
4.	Nicky Eiseman	PO Box 106 Ester 99725	8/8/02
5.	Robert J. Thompson	Box 35 Kaktovik AK. 99747	8-8-02
6.	Rebekah L. Legg-Merrell	Box 71 Healy, AK 99743	8-8-02
7.	Hugh Tordoff	2600 Broadmoor Ave. Fbks. AK. 99709	8-8-02
8.	Jennine Williamson	2454 Killarney Way 99709	"
9.	Judith Steyer	1092 Propwash Dr Fairbanks AK 99709	8/8/02
10.	Sherrey Lewis	2215 Solar Ave Fairbanks AK 99709	8/9/02
11.	Louise Eames	Box 156 Ester, Ak 99725	"
12.	Nora P. Foster	2998 Gold Hill Rd Fairbanks 99709	8/9/02
13.	Steven Mathews	482 Cindy Dr Fbks, Ak 99701	8/9/02
14.	KAREN MATTHEWS	482 CINDY DR FBKS AK 99701	8/9/02
15.	Dana Durham	P.O. Box 60182 Fbks AK 99706	8/9/02
16.	RON KOVALIK	BX 72563 " " 99707	"
17.	NANCI NORUM	POBOX 58180 FAI, AK. 99711	8/9/02
18.	Bill Wilke	Po Box 60393 Fbks, AK 99706	8/9/02
19.	Margo Savell	4105 Billy's Ln Fbks AK 99709	8/9/02
20.	Greg Egan	981 Gold Mine Tr. Fbks AK 99712	8/9/02

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	Name	Address	Date
1.	Phil Wildfang	299 Hawk Rd, Fbks 99712	8/9/02
2.	Ian Payne	299 Hawk Rd Fbks 99712	8/9/02
3.	Uma Bhatt	1585 Gonzaga Way 99709	8/9/02
4.	David Newman	1585 Gonzaga Way 99709	8/9/02
5.	~~Dana Smith~~	PO Box 81136 Fbks AK 99708	8/9/02
6.	Rosemary Bailey	5861 Tinro Dr Anch. AK 99507	8-9-02
7.	Danielle Thompson	PO Box 71743 Fairbanks AK	99707 8/9/02
8.	Jonathan Rosenberg	140 Blue Fox Run Fairbanks AK	99712
9.	Charlotte Behan	P.O. Box 84092 FBKs AK	99708 8/10/02
10.	MARY LACATENA	PO BOX 85238 " "	99708
11.	Cole Sobrepena	P.O. Box 178, ESTER AK 99725	8/10/02
12.	John Finch	P.O. Box 81246 Fbx, AK 99708	8/10/02
13.	Winnie Atwood	PO. Box 85318 " " 99708	8/10/2
14.	Rene Alison York	1190 Sundance Loop Fbx 99709	8/10/02
15.	Luana Gallo	1507 Ridge Board Rd Fbks 99712	8/10/02
16.	PATRICK KERBER	1618 SCENIC LOOP, FBKS 99709	8/10/02
17.	Mike Endres	2150 Sojourn Ln, Fbks 99709	8-10-02
18.	Hilary McCulloh	PO Box 84198 Fbks 99708	8-10-02
19.	Alina Evans	Box 84198 Fbks 99708	8-10-02
20.	David Shaw	3124 Goldhill Rd. Fairbanks AK 99709	8-12-02

Responses for Document 00104

00104-001: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00104-002: The reader is directed to the discussion of escrow funds found in Section 2.5.

00104-003: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00104-004: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00104-005: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent’s office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00104-006: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00104-007: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00105

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1011 E. Tudor Rd.
Anchorage, Alaska 99503-6199

02 AUG 26 AM 11:52

IN REPLY REFER TO:

AFES/FHC/AFWFO/FFWFO

AUG 19 2002

Memorandum

To: State Director - Bureau of Land Management

From: Regional Director - Region 7

Subject: Comments on the Draft EIS for the Trans-Alaska Pipeline System Right-of-Way Renewal (EC 02/0038)

These comments are in response to the publication of the Draft Environmental Impact Statement for the Trans-Alaska Pipeline System (TAPS) Right-of-Way Renewal (Draft EIS). Please refer to our earlier correspondence regarding this project, dated September 28, 2001, October 17, 2001 (Scoping Comments), and June 18, 2002 (Endangered Species Act Consultation).

General Comments

In general, we believe the Draft EIS is thorough and well written. Given our responsibilities for fish and wildlife resources, particularly those outlined under the Fish and Wildlife Coordination Act, the Migratory Bird Treaty Act, and Section 404 of the Clean Water Act, we offer the following comments for your consideration. 105-1

There are three major issues relative to the Service's trust resources that should be addressed in renewal of the TAPS right-of-way: 1) maintaining the integrity of the pipeline itself in transporting oil without leaks, spills, breaks or other problems; 2) protection of Prince William Sound from tankers' introduction of invasive aquatic species, which may be in ballast waters taken on elsewhere; and 3) ensuring fish passage at all 3,200 crossings of fish streams by the pipeline, associated facilities, and access roads. 105-2

Due to the age of the pipeline increased maintenance will likely be required. We appreciate the millions of dollars Alyeska has spent, and plans to spend to protect pipeline integrity. We support these efforts and believe it is essential that the right-of-way reauthorization include requirements for rigorous, systematic checkups, detailed maintenance plans including implementation, and a schedule of environmental monitoring of the pipeline and Valdez Terminal. 105-3

As mentioned in our October 17, 2001, memorandum, the Service believes the greatest single risk posed by operation and maintenance of the TAPS on fish and wildlife is the increasing probability of a major oil spill. The Service requests further explanation in the Final EIS of the additional steps to be taken to prevent and minimize the potential impacts of spills from TAPS infrastructure as it ages. The Draft EIS does an effective job of describing existing mitigation measures, including leak detection systems, but does not discuss any operating measures that could be taken to further protect the line from underground or above ground leaks or to detect particularly small, chronic leaks. One approach could be to use hydrocarbon sensors that would detect extremely small leaks, similar to the system in place for the Northstar pipeline. We understand that existing TAPS leak detection systems will not detect chronic, low-level leaks of a few hundred barrels per day. If such leaks occur underground and near sensitive habitats such as streams, the spill could cause considerable damage before detection. 105-4

As documented in the Draft EIS, fishery resources along the TAPS and associated infrastructure are significant in number and diversity. Twenty nine species of fish are known to occur or could occur in the streams, rivers, and waterbodies near the TAPS right-of-way; both anadromous and resident fish streams crossed by the pipeline and its support infrastructure and activities have been well documented (e.g., BLM 1987 a and b, as cited in the Draft EIS). We appreciate the efforts Alyeska has made in recent years to implement a more rigorous surveillance and monitoring system to ensure integrity of fish crossings along the TAPS corridor. We recommend that the TAPS renewal Draft EIS describe the existing procedures related to monitoring fish passage: 1) current cross-training and close coordination of Alyeska field personnel and agency biologists associated with the Joint Pipeline Office; and 2) continued annual inspections of fish crossings, and followup processes, which include ensuring that work orders for culvert corrections and improvements resulting from those inspections are fully implemented in a timely manner. 105-5

Specific Comments

Volume 1

Page ES-1, Last Paragraph: Port Valdez is not completely ice free during the winter. This section should describe the frequency of icing since the beginning of TAPS operation and analyze potential frequency of icing and its effects on tanker traffic and Valdez terminal operations. 105-6

Page 2-11, Table 2-1, TAPS ROW Renewal DEIS Summary of Direct and Indirect Effects: The Physical Marine Environment section of this table needs to summarize the environmental impacts associated with the discharge of untreated and treated oily ballast water into marine waters. These impacts include the introduction of non-indigenous aquatic species and hydrocarbons into Port Valdez. 105-7

Volume 2

Page 4.1-20, Paragraph 3: We support and encourage the use of innovative stream control methods such as the Rosgen technique to avoid the placement of larger structures such dikes or revetments. 105-8

Page 4.2-3, Section 4.2.2.2: This section needs to include information on the impacts associated with discharge of oily ballast water after it is treated. Although much of the oil is removed at the Ballast Water Treatment Facility, the treated water still contains crude oil residues that are released into Port Valdez and may have impacts on the marine environment. Recent studies (Payne et al. 2001) indicate that polynuclear aromatic hydrocarbons (PAH) and saturated hydrocarbons (SHC) have accumulated in the intertidal mussels within Port Valdez and have also been found in the water column and sediments. When the study was conducted, the PAH and SHC levels were low and not considered to be harmful. However, we believe long-term monitoring studies should continue to evaluate potential impacts over time and cumulative effects. 105-9

We also support additional monitoring studies, as suggested by (Payne et al. 2001), such as investigating the seasonal transport of concentrated oil contaminants in surface microlayers that have the potential for photoenhanced toxicity. 105-10

In addition, this section should describe potential impacts associated with the introduction of non-indigenous aquatic species caused by the intake of water from ports outside Alaska and released into Alaska waters via untreated ballast discharge from oil tankers. It should also include a discussion on how the treatment of oily ballast water from non-segregated tanks likely eliminates survival of exotic species, whereas untreated discharge of water from segregated ballast tanks introduces exotic species into the marine environment. 105-11

Due to the large volume (17 million metric tons per year) of untreated ballast water discharged from tankers into Port Valdez, the transport of non-indigenous species into Alaska waters is of major concern. The non-indigenous species that are transferred from ports outside of Alaska may prey upon or compete/outcompete with native species and may cause significant ecological impacts. Fourteen non-indigenous species were identified in the ballast water from oil tankers that arrived in Port Valdez and have a high potential of initial survival in the salinity-temperature conditions of Prince William Sound (Hines and Ruiz 2000). Since oil tankers continually repeat the discharge of ballast waters from the same non-Alaskan ports into Port Valdez, the potential ability for non-indigenous aquatic species to become established in Prince William Sound is of particular concern.

We appreciate the cooperation from Alyeska Pipeline Service Company for previous exotic species in tanker ballast water studies we have been involved in, and encourage continued coordination with them to investigate measures that will prevent introduction and potential establishment of exotic species in the marine environment. 105-12

Page 4.2-3, Section 4.2.2.3: The need for gravel/rock mining and the potential impacts to aquatic systems is mentioned in this section, but no discussion follows of potential means to minimize or avoid these impacts. Projected gravel needs, potential new and used material sources, and impacts on fish and wildlife need to be addressed. A cooperative effort to restore abandoned material sites to useful habitat could be pursued by Alyeska, in conjunction with BLM and other resource agencies. Such measures should be investigated and described in the Final EIS. 105-13

Page 4.2-11, Paragraph 2: To help prevent exotic aquatic species from entering Port Valdez via tankers, we recommend investigating and implementing a management plan (i.e., at-sea ballast water exchange) or a system to treat non-oily ballast water before it is released into marine waters. 105-14

If you have any questions please call Mary Lynn Nation, Fisheries and Habitat Conservation, at (907) 786-3519.

References

Hines, A.H. and G.M. Ruiz (eds). 2000. Biological invasions of cold-water coastal ecosystems: ballast-mediated introductions in Port Valdez/Prince William Sound, Alaska. 2000. Final report to Regional Citizen's Advisory Council of Prince William Sound, 13 pp.

Payne, J.R., W.B. Driskell, M.G. Barron, and D.C. Lees. 2001. Assessing transport and exposure pathways and potential petroleum toxicity to marine resources in Port Valdez, Alaska. Prepared for the Prince William Sound Regional Citizens' Advisory Council Long-Term Monitoring Program. 72 pp.

Responses for Document 00105

00105-001: Thank you for your comment.

00105-002: To the degree possible, integrity of the pipeline to transport oil without spills, etc., under the Proposed Action, is accomplished through JPO oversight and a variety of design features and operational controls as addressed in Section 4.1.1, 4.1.2 and 4.1.3 of the EIS. However, even with these features in place the possibility of oil spills cannot be fully removed. For this reason there are also spill prevention and response measures that are included as part of the proposed action and that are presented in Section 4.1.4 of the FEIS. The potential impacts associated with spills of various probabilities and magnitudes are presented in Section 4.4 of the FEIS.

The issue of the potential introduction of invasive aquatic species into Prince William Sound via tanker ballast water is discussed in the analysis of cumulative impacts in Section 4.7.7.2.1. It is recognized in that section that tanker traffic associated with the oil transport from the pipeline will add to the potential for introducing such organisms into Prince William Sound and that ballast water treatment would reduce the potential for such an impact.

Maintaining fish passage at points where TAPS crosses streams and rivers is also addressed in the FEIS. Federal Grant Stipulation 2.5.1 identifies a number of requirements and controls that must be met relative to fish passage (see Section 4.1.3.3, Table 4.1-2). Potential impacts of the Proposed Action on fish passage are discussed in Section 4.3.16.2. Briefly, this section identifies that while temporary impediments to fish passage may occur in some streams as a result of the presence and operation of TAPS, long-term effects on fish populations are not anticipated. One factor in drawing this conclusion is the variety of measures that are in place to evaluate stream crossings, identify obstructions to fish passage, and address such obstructions.

00105-003: It is correct that the effects of aging have the potential to impact the integrity and reliability of any mechanical system. However, age alone does not dictate reliability or performance. Myriad factors can impact system performance. For example, the manner in which mechanical systems are operated and maintained can greatly influence their long-term integrity, reliability, and performance.

Existing right-of-way requirements and TAPAA provide the BLM with sufficient authority to oversee TAPS operations and to impose strict and enforceable requirements on APSC. Utilizing its oversight authority, the JPO ensures that APSC's operating and maintenance procedures take all potential impacting factors into account and are sufficient and appropriate to maintain TAPS integrity. The JPO also has the authority to direct APSC to undertake changes, repairs, or upgrades when that is not the case. Under the reliability centered maintenance (RCM) program, all TAPS subsystems are being carefully evaluated for the consequences of their failure and will have maintenance regimens or remanufacture, overhaul, or replacement schedules established that preclude such failures from occurring, if they would have an adverse impact on public safety or the environment.

00105-004: As described in Section 4.1.2.9 of the EIS, APSC has three different leak detection systems in place: 1) Deviation Alarms, 2) Line Volume Balance (LVB) and 3) Transient Volume Balance (TVB). The leak detection systems for the TAPS can detect leaks down to 0.12% of rated capacity or approximately 100 barrels per hour. Leaks from above ground sections of TAPS can be detected by surveillance as small as 1 gallon per day. A 1 gallon per minute leak below ground can be assumed to be detected and located within 3 months. Section 4.4 of the EIS discusses the spill scenarios considered and the estimated impacts from these scenarios. The scenarios range from high frequency/low consequence events to low frequency/high consequence occurrences. One of the scenarios considered along the pipeline is a leak due to corrosion related damage that could occur either above or below ground. Up to 10,000 bbl of oil was assumed to spill and the spill duration was assumed to be prolonged (on the order of days).

00105-005: Section 4.3.16.2 has been modified to more clearly identify that current operations include training, coordination between agency biologists and APSC field personnel, annual inspections of fish crossings to identify potential obstructions, and follow-up procedures to ensure that obstructions are removed and improvements are made in a timely fashion

00105-006: Tanker operations, regulations, and spill analysis all used historic information to evaluate the effects of weather on operations of the terminal and the tanker fleet. While ice is not mentioned explicitly, adverse weather conditions are discussed. The text was changed to reflect the fact that Port Valdez does have icing.

00105-007: Under the proposed action, oily (non-segregated) ballast water from tankers is required to be treated in the Ballast Water Treatment Facility (BWTF), as identified in Section 4.1.2.7. Potential impacts of BWTF operations on fish resources, including introduction of nonindigenous organisms) is presented in Section 4.3.16.1 of the EIS. As identified in that section, it has been observed that oily ballast water contains very few viable organisms. Following treatment of the oily ballast water in the BWTF, it is considered unlikely that nonindigenous organisms would be introduced via the BWTF. Of greater concern, is the potential for introduction of nonindigenous organisms via non-oily (i.e., segregated) ballast water that gets exchanged for water in Prince William Sound. The possibility of the introduction of nonindigenous organisms via untreated segregated tanker ballast water is addressed as part of the analysis of cumulative effects in section 4.7.7.2.1. A reference to this section has been added to the discussion in Section 4.3.16.1.

00105-008: Thank you for your comment.

00105-009: The Alyeska Annual Data Report for June 2000-May 2001, filed with the EPA and ADEC pursuant to Part III.B.6 of NPDES Permit No. AD-002324-8, shows the effluent from the BWTF did not exceed the specific limits established in the Permit. The effluent limits in the Permit are established by the EPA, and certified by the ADEC, at levels expected to prevent adverse effects on receiving waters. See Appendix C, Section C.

While we recognize that the PWS RCAC has recommended that NPDES permit levels for the BWTF be reduced, the EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms. Section 4.3.16.1 provides data and analyses of the impacts of PAHs discharged to PWS.

00105-010: Text has been added to Section 4.4.10 that mentions photoenhanced toxicity of some PAHs when exposed to sunlight and provides additional citations.

00105-011: The possibility of introducing nonindigenous organisms via untreated segregated tanker ballast water is addressed as part of the analysis of cumulative effects in Section 4.7.7.2.1.

00105-012: Thank you for your comment.

00105-013: Projected gravel needs under the proposed action are identified in Section 4.3.4 and it is estimated that less than 100,000 cubic yards of material per year would be required. This section also identifies that most of the required material would be obtained from the 69 operational material sites now being utilized and recognizes that some additional materials sites might need to be developed. Development of additional sites would be evaluated separately under NEPA and under state and federal permit processes. Potential effects of gravel mining in streambeds on fish resources is addressed in Section 4.3.16.1, including the potential for utilization of some gravel excavation sites as overwintering habitat for fish.

00105-014: Section 4.7.7.2.1 recognizes that tanker traffic associated with the oil transport from the pipeline will add to the potential for introducing such organisms into Prince William Sound and that ballast water treatment would reduce the potential for such an impact.

00106

NVN
Native Village of Nuiqsut
P.O. Box 89169, Nuiqsut Alaska 99789
PHONE (907) 480-3010 FAX (907) 480-3011 EMAIL tanvn@astacalaska.net

August 23, 2002

Joint Pipeline Office
411 West 4th Avenue
Anchorage, AK 99501

RE: Comments

Since day one, Nuiqsut has experienced impacts from the Aleyeska pipeline. Aleyeska needs to recognize that Nuiqsut is the most impacted village. Complete study of the pipeline impact has not been done on the village, and most important, the subsistence resources we depend on.

Here is a list of requests: (1) the Native Village of Nuiqsut (NVN) members and Nuiqsut Tribal Council (NTC) would like to have a Local Advisory Board, (2) we are also requesting more impact studies regarding animals, birds and humans, (3) there are no emergency services available on the hall road, we need these services because many residents of Nuiqsut use the roads also, (4) the facilities needs to be more respectful with the residents when they are requesting assistance when they are traveling on the hall road, (5) the adverse impact on environment and social impacts are not being studied, we would like to se the adverse impacts, (6) we need to have more local training and hiring for the residents of Nuiqsut, (7) and more time is needed to thoroughly evaluate extensions of permits. 106-1 106-2 106-3 106-4 106-5 106-6 106-7

Thank you,

Zena Kasak

Zena Kasak, Tribal Administrator
Signing for Leonard Lampe Sr., President

PHONE (907) 480-3010 FAX (907) 480-3011 EMAIL tanvn@astacalaska.net
P.O. Box 89169, Nuiqsut Alaska 99789
Nuiqsut Tribal Council
NTC

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Responses for Document 00106

00106-001: The reader is directed to Section 2.5 of the FEIS, which discusses the need for advisory boards. The BLM will continue to work to listen very carefully to input provided by Alaska Native Tribes and villages on issues related to TAPS operations.

00106-002: The FEIS sections on biological resources (4.3.14-18 and 4.4.8-12) have been revised to include information provided by the public during the comment process on the DEIS. The reader is also directed to section 2.5 in which BLM states that studies on issues related to pipeline operations can be initiated at any time if these studies are deemed necessary for the safe operation of TAPS.

00106-003: Emergency services on the Dalton Highway are outside the scope of the EIS.

00106-004: Access by travelers to APSC facilities on the Dalton Highway are outside the scope of the EIS.

00106-005: Impacts to the environment, including social, economic, and subsistence are presented in Chapter 4 of the FEIS.

00106-006: Section 2.5 discusses employment issues under section 29 of the Federal Grant. Employment requests by individual villages or Alaska Native Tribes are outside the scope of the EIS.

00106-007: The time periods required for reviewing individual permits are outside the scope of the EIS.

CITY OF CORDOVA, ALASKA
RESOLUTION 08-02-51

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CORDOVA, ALASKA, CONDITIONALLY ENDORSING A 30-YEAR RENEWAL OF THE RIGHT-OF-WAY FOR THE TRANS-ALASKA PIPELINE SYSTEM

WHEREAS the Bureau of Land Management, in close cooperation with the State of Alaska, is seeking public comments on a proposed action to grant a 30-year renewal of a right-of-way for the Trans-Alaska Pipeline System (TAPS); and

WHEREAS the City of Cordova's primary economy is dependent on salmon production from the Copper River watershed; and

WHEREAS the TAPS crosses tributaries of the Copper River in more than 75 locations; and

WHEREAS scientific studies released last year state that the long-term damage to salmon from spilled oil is significantly higher than previously thought; and

WHEREAS the spill contingency plans for the pipeline are inadequate – as demonstrated by the Livengood bullet hole spill of 2001; and

WHEREAS the 800-mile long TAPS was completed in 1977 and is showing evidence of its age – as demonstrated by the 21-inch shift in a section of pipeline that went undetected for several months; and

WHEREAS the City of Cordova knows first-hand the importance of prevention and practice for effective emergency response efforts.

NOW, THEREFORE, BE IT RESOLVED THAT the City of Cordova endorses a 30-year renewal of the TAPS right-of-way on condition that:

1. An in-depth audit of the pipeline's operations and hardware be conducted by an independent entity, such as the National Academy of Sciences, at least every five years. The purpose of this audit is to ensure its operations and hardware stay current with the best available technologies and science. 107-1
2. A citizens' advisory council for the overland segment of the pipeline be established and include representatives of communities and landowners along the right-of-way. This council would make recommendations to the Department of Interior and Alaska Department of Natural Resources. 107-2

BE IT FURTHER RESOLVED THAT the City of Cordova requests a 45-day extension of the August 20 deadline for public comments on the right-of-way renewal. A 45-day comment period in the middle of the summer in Alaska is extremely unfair to rural Alaskans who must use every day of summer to either earn or catch their winter keep. 107-3

PASSED AND APPROVED THIS 21ST DAY OF AUGUST, 2002.

Nancy Bird, Vice-Mayor

Lila J. Koplin, City Clerk

Responses for Document 00107

00107-001: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00107-002: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00107-003: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00108

Petition for Conditions of TAPS Lease Renewal

We, the undersigned insist up on the following conditions for the renewal of TAPS operational Leases:

- The grant lease should establish a citizens oversight group (COG) funded by the TAPS Owners through the Department of the Interior. 108-1
- TAPS dismantling, removal and restoration (DR&R) funds should be immediately placed in an escrow account. 108-2
- Grant and Lease renewal should be made conditional on satisfactory completion of an immediate comprehensive independent field audit, as well as an independent technical review and field audit every five years. 108-3
- TAPS should be transferred to a single responsible managing party with no North Slope production. 108-4
- A TAPS Employee Concerns Program should be incorporated into lease and right-of-way renewal to ensure critical problems are adequately addressed to prevent spills. 108-5
- Stipulations attached to the original federal and state Grant and Lease agreements should be carefully reviewed to ensure that they reflect a) scientific and technological advances during the last three decades and b) experience with the operation of TAPS. 108-6

Name	Address	Date
1. Maggie Pinson	18716 95th Avenue NE, Bothell WA 98011	08-15-02
2. Mark Steen	Box 1310 CORDOVA, ALASKA 99574	08-15-02
3. Osa Schultz	Box 1291 Cordova AK 99574	8-15-02
4. Vroudlu Montgomery	Box 1158 Cdv. AK. 99574	8-15-02
5. Michael Baiata	PO Box 1555 Cordova AK 99574	8-15-02
6. Clayton Hawkes	925 Fritz Cove Rd Juneau AK 99801	8-15-02
7. Paul Rahweder	PO Box 2853 Bellingham, WA 98228-1853	8-15-02
8. Sierra Drake	PO Box 1464 Cordova AK 99574	8-15-02
9. Rebecca Brewer	PO Box 841 CORDOVA AK 99574	8-15-02
10. Katheen Lees	1075 Urania Ave Leucadia, CA 92024	8-15-02
11. Debi Olzenak	PO Box 634 Cordova 99574	8/15/02
12. Barbara Morford	S11691 Badger Rd Spring Green, WI 53588	8/15/02
13. Becky Clausen	PO Box 1560 Cordova, AK 99574	8/15/02
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Petition for Conditions of TAPS Lease Renewal

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- Grant and Lease renewal should be made conditional on satisfactory completion of an immediate comprehensive independent field audit, as well as an independent technical review and field audit every five years.
- TAPS should be transferred to a single responsible managing party with no North Slope production.
- A TAPS Employee Concerns Program should be incorporated into lease and right-of-way renewal to ensure critical problems are adequately addressed to prevent spills.
- Stipulations attached to the original federal and state Grant and Lease agreements should be carefully reviewed to ensure that they reflect a) scientific and technological advances during the last three decades and b) experience with the operation of TAPS.
- The public comment period must be extended by at least 45-days to ensure ample time for meaningful input. 108-7

	Name	Address	Date
1.	Joleen Decker	4101 University Dr. #5-57 Anchorage 99508	8/3/02
2.	Tom Cook	PO 1711 CdV	8/3/02
3.	Joanna L. Reichhold	POB 806 Cordova	8/3/02
4.	Mark G. Cummings	5-mile Copper River Hwy Cordova	8/7/02
5.	Meadow Bejarano	POB 1261 cordova AK	8/7/02
6.	[illegible]	POB 853 cordova Ak	8/8/02
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Responses for Document 00108

00108-001: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00108-002: The reader is directed to the discussion of escrow funds found in Section 2.5.

00108-003: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00108-004: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00108-005: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent’s office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00108-006: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00108-007: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00109

August 20, 2002

BLM TAPS Renewal EIS
Argonne National Lab EAD/900
9700 S. Cass Ave.
Argonne, IL 60439
tapswebmaster@anl.gov

State of Alaska, DNR/JPO
Attn: TAPS Renewal Team
411 West 4th Ave., Suite 2C
Anchorage, AK 99501
ADNR_Administrative_Record@jpo.doi.gov

Re: Comments on Application of the Owners for Renewal of the Federal Grant and State Lease for the TAPS Right-of-Way

Over half my life, 27 years, has been invested here in the community of Cordova. The bottom dropped out of my world as a gillnetter' s wife during the technological disaster of the Exxon Valdez oil spill. My marriage disintegrated, my ability to make a living as a news writer, initially very promising, deteriorated. I now live in public housing, working at odd jobs, struggling with domestic and mental health issues while I continue to try and build a viable business and take care of my children and fight off a hopelessness I believe is directly related to the 1989 disaster . We are the stewards of the land and our lives. Our community is splintered with the consequences of the Exxon Valdez oil spill and no more irresponsibility must occur. The Trans-Alaska Pipeline System absolutely has to be accountable.

I strongly disagree with statements made by both the state and federal regulators in the draft EIS documents. I am concerned that the next major spill will be along the overland portion of TAPS. The main pipeline crosses 76 tributaries of the Copper. While spill prevention and response measures have improved significantly since the 1989 spill—almost all due to citizen oversight and pressure, most of those changes are at the Valdez terminal and in Prince William Sound. On the pipeline, reliable spill prevention and response measures still do not exist. The problem is particularly acute at river crossings. TAPS crosses 800 streams and sections of pipeline over rivers have reached design capacity for sag—there is nothing left to give. This seems like an accident waiting to happen. 109-1

In the early 1970s and promised there wouldn' t be an oil spill in Prince William Sound and made other promises such as tankers would have double hulls and we would have a state-of-the-art traffic control system in the Sound. Had these promises been kept, we might not have had the *Exxon Valdez* oil spill.

Some, but not all, of the oil companies' promises were stated as a set of conditions and stipulations in the original agreements and right-of-way grants. The Interior Department and its designees were assigned the job of ensuring those promises to the American people were kept. Even a brief review of history shows that many of these promises were broken and that the companies were allowed to operate for literally years in noncompliance with their federal grant and state lease.

For example, the ballast water treatment (BWT) facility at the tanker terminal has not been reviewed at least once every 5 years to ensure state-of-the-art equipment and technology as promised the federal grant and state lease. Some improvements at the BWT facility occurred only recently and through citizen involvement and oversight. The vapor recovery system at the tanker terminal didn' t work for decades—since startup until 1998 when vapor controls were built into two of the four berthing docks. When it didn' t work it dumped literally tons of benzene into the air and jeopardized public and worker health and safety in violation of the federal grant, state lease, and operating permits. In 1993, concerned industry employees testified in Congress that the quality control program was nonexistent—since startup—and, as a result, the entire TAPS had been so poorly maintained that it posed an imminent threat to the public, workers, and the environment. Subsequent audits validated the whistleblowers' concerns. Operating without an independent quality control program is in direct violation of the federal grant and state lease. 109-2

More recent examples occurred after the *Exxon Valdez* oil spill. Still now over 13 years later, most of the species studied by the Trustee Council have not recovered from the spill. Yet the federal grant and state lease promise that damages to public lands will be promptly repaired or replaced and that damages to public fish and wildlife resources, and their habitat, will be rehabilitated. This has not happened. 109-3

The oil companies also promised in stipulations attached to the federal grant and state lease to " take all measures necessary to protect the health and safety of all persons affected by their activities..." (Stipulation 1.20.1). I believe this promise includes taking care of residents and cleanup workers after a spill. Yet, after the *Exxon Valdez* spill, Tatitlek villagers observed that Exxon was willing to spend $800,000 on each sea otter for rehabilitation, but nothing or very little on mental health care for people traumatized by the spill. Further, thousands of cleanup workers got sick during 1989, despite Exxon' s worker safety program. I am just learning that hundreds of people may still be sick from overexposure to oil vapors, fumes, and aerosols during the cleanup. All the oil companies promised to " immediately abate any health or safety hazards" (Stipulation 1.20.1): it seems all the companies, not just the spiller, are responsible to ensure that people don' t get sick during the cleanup—and to take care of the ones who do as per the original promise. 109-4

I think that the oil companies are now currently in noncompliance with the federal grant and state lease. For example, the fire-fighting ability at the tanker terminal is virtually nonexistent. Oily sludge (hazardous waste) has collected several feet deep in tanks at the BWT facility—and the sludge incinerator was never built as per the original facility design. There is still no independent quality assurance program. The contingency plans for river spills are grossly inadequate—drills show the plans won' t work to contain and cleanup oil spilled into rivers. I' m sure this list is incomplete and pipeline regulators could add to it if they were to seriously look for problems and not just respond to ones brought to their attention by citizens or concerned employees. 109-5

In light of these past and still ongoing problems, The Alaska Department of Natural Resources found the oil companies to be in compliance with the state lease. Why?

Federal and state regulatory agencies also stated that the aging 800-mile pipeline and its support systems that were originally built to last 30 years *"ca n be sustained for an unlimited duration"* with minimal costs and change in the operating and maintenance procedures. This statement demonstrates a lack of credibility—and no grasp of reality. The recent spate of accidents including the failed response to the Livengood bullet hole spill, and the 21-inch shift in a section of pipeline that went undetected for several months show that both industry and the regulators are ill-prepared for serious problems along the overland section of TAPS. The 3 spills at pump stations on pipeline startup after routine maintenance last fall clearly demonstrate this pipeline is aging and not aging well as frequent spills on startup are one sign of increasing problems that should be anticipated—not ignored—in an aging pipeline. 109-6

I was further shocked and offended by the following statement in the draft EIS. " While the *Exxon Valdez* oil spill was a significant event in the operation of TAPS, creating significant benefits to the state and local economy that more than offset the economic damage to the fishing and tourism industries in Prince William Sound, it is unlikely that a spill of such magnitude, even if it occurred again would create the same level of economic activity" (DEIS, page 4-7-116).

This offensive statement clearly shows that the government regulators have a completely different perspective of their job of pipeline oversight than we were all led to believe by the federal grant and state lease. The original right-of-way documents do not mention that economics of spill cleanup would be weighed against economic damages to the few communities at risk—I don' t think the right-of-way would have been granted with such a discriminatory approach. Instead the oil companies promised to protect, repair, replace, rehabilitate, etc. fish and wildlife resources, and their habitat (Sections 13, 14, 15, 19, 20, and 21)—and the regulators are supposed to hold the companies to this promise. Specifically, the companies also promised to protect subsistence resources, lands, and users, which have a zero dollar economy and can' t be compared to economics of spill cleanups at all. 109-7

Oil spills are expensive to clean up—I'm sorry that I can't see this as good for the economy, but that's really irrelevant. Even if there was zero economy as measured by exchange of dollars, the oil companies are authorized to operate only if they take steps to minimize risk of oil spills and damage from spills. It's the government regulators' job to see the oil companies are held to this standard—the statement in the draft EIS seems to indicate that the regulators are not doing their job and are out of compliance themselves with the federal grant and state lease.

Finally, I must state that I feel this 45-day public comment period for a project of such national and state significance is counterproductive at best and a sham at worst. I did not have time to thoughtfully review the 1,700 page draft EIS because I have been busy trying to earn a living and put up winter food during Alaska's short summer. It appears from statements in the draft EIS that the government regulators did not have time to thoughtfully review nearly 30-years of TAPS history and compare performance with promises, conditions, and stipulations in the federal grant and state lease. Why the rush on a project of such significance? Over a year ago, the Joint Pipeline Office stated that the comment period would run from July to September, but in keeping with 25 years of broken promises by TAPS operators and government regulators, the regulators have broken that promise too. 109-8

Despite all the obstacles for public testimony, I offer the following recommendations for improving TAPS operations for the next 30 years—and I believe all my comments are well within the scope of this National Environmental Policy Act hearing process. I can only support reauthorization for another 30 years if these recommendations are fully addressed and included in the next federal grant and state lease.

#1 Stiff meaningful penalties for failure to comply.

All the laws, regulations, stipulations, and oversight in the world are forever inadequate without meaningful penalties and enforcement. Monetary fines are dwarfed by enormous profits, and the regulators are certainly not going to shut down the oil flow as a penalty for noncompliance—the nation has become too dependent upon this energy source. The track record of the oil companies show that it has acted like a child who knows it is never going to be disciplined. This was not what the American public was originally promised or led to believe would happen. 109-9

Some possibilities for meaningful penalties for noncompliance by the oil companies include requirements for: 1) reporting the circumstances of noncompliance to their shareholders in quarterly newsletters as the events unfold (not after the fact); 2) CEOs and other responsible officers of oil companies to conduct public service in the TAPS corridor communities most at risk from the consequences of the noncompliance; 3)

accruing penalties with interest on a daily basis as long as the infraction occurs; and tying penalties in with the cost of the fixing the problem so that penalties are 10 times the money saved by failure to do the maintenance work in a timely manner. This latter would force owners to change perspective and view maintenance as a *cost savings* compared to prospective penalties. 109-9 (Cont.)

#2 ***Establish a TAPS Citizens' O versight Group.***

Following the *Exxon Valdez* tragedy in 1989, the State of Alaska created the Alaska Oil Spill Commission to investigate the root causes of the spill and recommend changes to the oversight system. One of the Commission' s central findings was that institutional complacency, both in industry and government, was a root cause of the spill. The Commission found that citizens were essential to an effective oversight system because they bring urgency to protecting the resources they care about and depend upon for their livelihoods. Distant bureaucrats, despite their best efforts, do not share this local perspective. To prevent future complacency, and thereby prevent future disasters, the Commission recommended creation of citizens' advisory councils for the marine **and overland segments** of Alaska's oil transportation system. We only have citizen oversight of the marine portion of TAPS—the tankers and tanker terminal—and it has proven the wisdom of the Commission' s finding. It is time to apply the lessons learned to the overland pipeline. 109-10

As a requirement of renewal, the grant and lease should establish a TAPS COG that would operate completely independently of government regulators and industry: incorporating government and industry into " citizen oversight" creates an oxymoron. The TAPS COG should make recommendations directly to the Department of Interior (DOI) and to the Department of Natural Resources (ADNR) or their designees. The COG should be funded through the DOI by the permittees as part of the cost of TAPS operations, and all members of the TAPS COG and their staff should be paid for their services. The COG contract should be negotiable on the same timeframe as the right-of-way permit; i.e., 30 years.

#3 ***Charge penalties if more than 10% of employees are afraid to speak out.***

Industry employees are the public's front line of defense in reducing oil spills. The workers know what is wrong and how to fix it. They need to be allowed to do their jobs free of harassment and intimidation. All personnel—and particularly the quality control inspectors—need to be independent of pressure from Alyeska and its owners to provide the reliable comprehensive quality assurance program promised to the public. Such a program is critical to TAPS integrity as the pipeline ages, because increased 109-11

maintenance costs will compete with oil company profits: workers need to be able to report maintenance problems without fear of reprisal.

The nuclear regulatory industry closes facilities if more than 10% of plant employees are afraid to speak out because of reprisals, harassment and intimidation. A similar standard should be adopted for TAPS operations, with annual independent surveys of workers to determine work conditions. Instead of closing facilities, stiff penalties should be applied, and public service by company officials and reporting of noncompliance to shareholders required (see Rec. #1, above). 109-11 (Cont.)

#4 ***Require independent, long-term epidemiology studies, and short- and long-term treatment of physical and mental health effects, for workers and affected residents after major TAPS spills.***

Oil spills were—and still are—an anticipated side effect of TAPS construction, operation, maintenance, and termination. That' s why there are oil spill contingency plans; that' s why the oil companies promised, as a condition of operating, to protect public and worker health and safety. But a promise is worth nothing without follow through: after the *Exxon Valdez* spill this promise was ignored. There was inadequate financial support to meet increased needs of mental health facilities in affected communities and short- and long-term physical health care needs of cleanup workers were unmet. This is simply unacceptable—and in noncompliance with permits.

TAPS owners should be required to pay for increased mental health care in the years during and immediately after a spill in all affected communities. This care should include focused peer listening circles to mitigate community-level emotional trauma. Since oil spill cleanups are considered a hazardous waste cleanup, long-term health care studies should be required as the health symptoms associated with crude oil exposure (long-term respiratory damage; disorders of the central nervous system, liver, kidney, blood, and skin; endocrine disruption; and immune suppression) could take years to manifest as physical health problems. Oil companies should also be required to provide chemical decontamination treatments for individuals with acute health symptoms from high body levels of crude oil and other substances present during the cleanup. Individuals who become disabled from overexposure to chemicals present during the cleanup should be compensated by the oil companies, as should the estate of individuals who die from overexposure to chemicals present during the cleanup. 109-12

#5 ***Require independent verification of spill volume as a condition of lease renewal.***

Spill penalties for damages to natural resources such as fish, wildlife, public lands held in the public trust are based on the volume of oil spilled—as reported by the 109-13

spiller. One way to reduce the risk of spills and resulting damage to the environment and worker and public health and safety—one of the promises of the original agreement and right-of-way leases—is to penalize TAPS owners, or responsible parties in the case of a TAPS tanker spill, for the correct amount of oil spilled.

For example, Exxon underreported how much oil it spilled. In an unpublished investigation on file at the Alaska Resources Library and Information Services, the State of Alaska found Exxon spilled about 35 million gallons. Exxon paid the American public one billion dollars for damage to public resources from a supposedly 11 million-gallon spill: by underreporting its spill by one-third, the company only paid for one-third of the damages and essentially saved itself two billion dollars. 109-13 (Cont.)

Independent verification should be required as a new condition of lease renewal. Further, stipulation should specify that government regulators and citizen oversight councils, either separately or jointly, conduct the assessment and agree upon the volume spilled before spill penalties are assessed.

#6 ***Thoroughly review and update the original right-of-way grants and stipulations in light of past experience, current science, new technology, new laws, and public comments.***

The federal grant and state lease are three decades old and no longer reflect current science, technological advances, and law changes. For example, global warming and melting permafrost threaten to make at least one-third of the 77,000 vertical support members of the TAPS unstable with potentially catastrophic effects on the pipeline. Studies from the *Exxon Valdez* spill show that oil is 1,000 times more toxic previously thought, and that it can cause long-term environmental damage. Federal laws are still based on outdated research from the 1970s and 1980s and are grossly under-protective of fish and wildlife. This makes the original promises to protect fish, wildlife, and habitat even more important as basically these promises mean the owners and TAPS regulators will take measures *beyond existing laws* in order to protect fish and wildlife, habitat, and other subsistence needs. 109-14

Further, the original grant and lease agreements were signed by some companies that no longer exist because of mergers and buyouts. I assume, but would like proof, that the new companies are signatories to the current right-of-way grants and leases.

#7 ***Grant and lease renewals should be made conditional on satisfactory completion—within 12 months of the renewal—of an independent field-based evaluation of the entire TAPS including hardware and management.*** 109-15

In 1993 a series of independent and industry audits found TAPS was in an imminent state of collapse with several major system wide problems including hardware problems, technical issues, and management issues. 1994 was proclaimed to be the " year of fixes" by the Alyeska president at the time, but fixes proved elusive. For example, the highly touted fiber optics cable, which was supposed to replace the old communication system, didn' t work as planned and was quietly shelved.

No one knows how many problems were actually fixed of those disclosed in 1993, or what new problems remain unfixed because there has not been any independent audits of the TAPS since 1993. This is not acceptable for a system that provides a significant portion of the nation' s energy demands and the bulk of the state' s operating revenues, and can wreak environmental, social, and economic havoc on Alaska' s communities, residents, and federally recognized tribes.

109-15 (Cont.)

#8 Grant and lease renewals should be made conditional on satisfactory completion of annual independent audits of TAPS operations and management and 5-year in-depth independent field-based evaluations of the entire TAPS, including hardware and management.

I am concerned that the recommended alternative—to renew the permits for another 30 years—is way to long for this particular pipeline: it is essentially double its design life. If reauthorization is granted, it should be made **conditional** upon satisfactory completion of independent audits every year with in-depth audits every 5 years as stated above. The Prince William Sound Regional Citizens' Advisory Council has to pass an annual audit and review of operations to be recertified. Nothing less should be expected for the entire TAPS, which has much more at stake than the advisory council!

109-16

#9 Immediately escrow TAPS DR&R funds and use interest to finance the TAPS COG and other measures to improve protections for environment, fish and wildlife, and worker and public health and safety.

Funds intended for future dismantling, restoration, and removal of the TAPS have been collected from TAPS oil companies and passed through to parent companies, resulting in enormous profits—and no pot of money for future DR&R. This is a breach of public trust—and yet another example of corporate irresponsibility and accounting fraud. Government regulators need to take immediate action to remedy this problem.

109-17

I want these funds to be escrowed now—**before any grant and lease renewals**—as a sign of good faith efforts and intention by oil companies and government regulators to the American public. The public was promised this once: we don' t need to be

promised it twice. Further, earnings from the funds can be pledged towards payment for fulfilling other stipulations under the original agreements—such as protecting the environment, public resources, and worker and public health and safety. 109-17 (Cont.)

#10 Transfer of TAPS operations to single source with no North Slope production.

The oil company owners consistently cut costs on TAPS operations and maintenance to increase their profits. This dynamic has created an internal conflict of interest, essentially, between the owners and the public interest. While the oil company permittees promised in the right-of-way leases to take all 'reasonable' or 'appropriate and adequate' steps to protect the environment, fish and wildlife, and public and worker health and safety, these adjectives are relative when viewed from different perspectives. What seems reasonable to the oil companies, who measure the cost of prevention against their profits, may not seem reasonable to the public, especially those who measure the cost of spills against their livelihoods and health. The track record shows that the oil companies have profited handsomely at the public' s expense. 109-18

By transferring the operation, maintenance, and termination of TAPS to a single source with no North Slope production, the internal conflict of interest is broken. This operator would take more 'reasonable' steps, from the public perspective, to reduce its liability from spills by attention to TAPS operations and maintenance. Performance bonds could be required for additional protection of the public interest.

Summary of Concerns

We are going to have to get very creative to prevent a pipeline spill. We can' t keep doing the same thing we have done in terms of TAPS operations and maintenance for the past 25 years. To continue past practices is to virtually guarantee a major spill in the TAPS corridor.

I ask that you give serious consideration to my comments. And I restate my position: I can only support TAPS reauthorization for another 30 years if these recommendations are fully addressed and included in the next federal grant and state lease.

Sincerely,

Carolyn Roesbery
Bx 594, Cordova, AK 99574

Responses for Document 00109

00109-001: Oil spill prevention and response capabilities and related activities specific to the Copper River drainage area are discussed more fully in a text box that has been added to Section 4.4.4.3.

00109-002: The JPO produced TAPS engineering report No. 00-E-018, Valdez Marine Terminal Ballast Water Treatment Plant: Compliance with Agreement and Grant Section 23 (May 24, 2000). The report satisfies the 5-year review process.

00109-003: The reader is directed to Section 2.5 of the EIS, especially the part on the Exxon Valdez oil spill.

00109-004: Section 4.4.4.7, Human Health and Safety, in the EIS, provides a detailed analysis of the potential effects of oil spills on human health. The BLM and member agencies of the JPO are committed to the protection of human health and the environment. The federal grant and authorizing legislation (TAPAA) provide unprecedented authority to BLM in assuring the protection of human health and the environment. Stipulations (the guiding conduct of operations for the operator of TAPS) within the federal grant contain numerous provisions that are protective of human health and the environment.

00109-005: Any information regarding potential hazards associated with TAPS should be provided by the JPO.

The Valdez Marine Terminal (VMT) has a number of fire protection systems, and fire protection capability was considered in preparing the EIS. See the text box in Section 4.3.13.1 for a complete description of the VMT protection /response features. Buildup of waxy solids in tanks at the Ballast Water Treatment Facility has received considerable attention by the JPO and APSC, as well as by citizen groups such as PWS RCAC. There is concurrence on an appropriate course of corrective action. See text box in Section 4.3.13.1.3.

APSC substantially revised its quality control procedures after the 1993 testimony. APSC's quality control program undergoes review by the JPO under its comprehensive monitoring program. See Section 4.1.3.1.

00109-006: It is correct that the effects of aging have the potential to impact the integrity and reliability of any mechanical system. However, age alone does not dictate reliability or performance. Myriad factors can impact system performance. For example, the manner in which mechanical systems are operated and maintained can greatly influence their long-term integrity, reliability, and performance.

Utilizing its oversight authority, the JPO ensures that APSC's operating and maintenance procedures take all potential impacting factors into account and are sufficient and appropriate to maintain TAPS integrity. The JPO also has the authority to direct APSC to undertake changes, repairs, or upgrades when that is not the case. Under the reliability centered maintenance (RCM) program, all TAPS subsystems are being carefully evaluated for the consequences of their failure and will have maintenance regimens or remanufacture, overhaul, or replacement schedules established that preclude such failures from occurring, if they would have an adverse impact on public safety or the environment.

The text box in Section 4.1.1.8 provides a synopsis of the MP 400 bullet hole incident. Details of the spill and the response are provided. Changes to the pipeline's spill contingency plan that are being made as a result of lessons learned are also discussed.

Each of the three spills that occurred on start-up after a maintenance-related shutdown have been carefully evaluated, and causal factors have been identified. The JPO has required APSC to revise its shut-down and start-up procedures to prevent reoccurrence. APSC is also required to conduct drills on its procedures to ensure they are correct and complete. Also, APSC has made modifications to piping at pump stations to enhance cold restart capabilities. Summaries of the three incidents are included in CMP Report #11, issued in April 2002. See also Section 4.1.1.4.

00109-007: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00109-008: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00109-009: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00109-010: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00109-011: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent’s office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00109-012: Section 4.4.4.7, “Human Health and Safety,” provides a detailed analysis of the potential effects of oil spills on human health.

The BLM and member agencies of the JPO are committed to the protection of human health and the environment. The Federal Grant and authorizing legislation (TAPAA) provide unprecedented authority to BLM in assuring the protection of human health and the environment. Stipulations (the guiding conduct of operations for the operator of TAPS) within the Federal Grant contain numerous provisions that are protective of human health and the environment.

00109-013: The BLM and the member agencies of JPO investigate all significant spills to verify the spill volume. There has been no evidence to date that past spill volumes have been reported inaccurately. If natural resource damage claims occur because of a spill, the U.S. Fish and Wildlife Agency or National Marine Fisheries Service conduct studies to evaluate damage to natural resources.

00109-014: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00109-015: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00109-016: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00109-017: The reader is directed to the discussion of escrow funds found in Section 2.5.

00109-018: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00110

Anast, Georgia A.

From: Richmond, Pamela
Sent: Tuesday, August 20, 2002 7:12 PM
To: Anast, Georgia A.
Cc: TAPSWEBMASTER
Subject: FW: renewal of Taps permit
Categories: Business

Georgia,
Here is another email comment to add.
Pam

-----Original Message-----
From: Pete Mickelson [mailto:akwings@ctcak.net]
Sent: Tuesday, August 20, 2002 6:48 PM
To: ADNR_Administrative_Record@JPO.doi.gov
Cc: tapswebmaster@anl.gov
Subject: renewal of Taps permit

Box 325
Cordova, Alaska 99574
17 August 2002

BLM TAPS Renewal EIS
Argonne National Lab EAD/900
9700 S. Cass Ave.
Argonne, IL 60439
tapswebmaster@anl.gov

State of Alaska, DNR/JPO
Attn: TAPS Renewal Team
411 West 4th Ave., Suite 2C
Anchorage, AK 99501
ADNR_Administrative_Record@jpo.doi.gov

Re: Comments on Application of the Trans-Alaska Pipeline System Owners for Renewal of the Federal Grant and State l for the TAPS Right-of-Way

Dear Sirs:

I have lived in the Cordova area since 1985, and from 1973 to 1975 prior to that. I am concerned abou Trans-Alaska oil pipeline developing leaks, particularly in the Copper River. It crosses at least 76 salmon streams, and since I am a subsistence user, I am very concerned about possible leaks. Alyeska needs to a this issue, among others, before the lease is renewed. I recommend renewal on a 5 year basis rather than years.

My comments are based on my experience living in and near a community that the oil company and government representatives visited in the early 1970s and assured there wouldn't be an oil spill in Prince William Sound. The oil companies made many other promises such as tankers would have double hulls a would have a state-of-the-art traffic control system in the Sound. Had these promises been kept, we migl have had the *Exxon Valdez* oil spill.

Some, but not all, of the oil companies' promises were stated as a set of conditions and stipulations in original agreements and right-of-way grants. The Interior Department and its designees were assigned tl of ensuring those promises to the American people were kept. Even a brief review of history shows that r these promises were broken and that the companies were allowed to operate for literally years in noncompliance with their federal grant and state lease.

For example, the ballast water treatment (BWT) facility at the tanker terminal has not been reviewed 110-1

least once every 5 years to ensure state-of-the-art equipment and technology as promised the federal gra state lease. Some improvements at the BWT facility occurred only recently and through citizen involvem and oversight. The vapor recovery system at the tanker terminal didn't work for decades--since startup 1998 when vapor controls were built into two of the four berthing docks. When it didn't work it dumped literally tons of benzene into the air and jeopardized public and worker health and safety in violation of t federal grant, state lease, and operating permits. In 1993, concerned industry employees testified in Con that the quality control program was nonexistent--since startup--and, as a result, the entire TAPS had so poorly maintained that it posed an imminent threat to the public, workers, and the environment. Subsequent audits validated the whistleblowers' concerns. Operating without an independent quality co program is in direct violation of the federal grant and state lease. 110-1 (Cont.)

More recent examples occurred after the *Exxon Valdez* oil spill. Still now over 13 years later, most of t species studied by the Trustee Council have not recovered from the spill. Yet the federal grant and state l promise that damages to public lands will be promptly repaired or replaced and that damages to public f wildlife resources, and their habitat, will be rehabilitated. This has not happened. 110-2

The oil companies also promised in stipulations attached to the federal grant and state lease to "take measures necessary to protect the health and safety of all persons affected by their activities..." (Stipulati 1.20.1). I believe this promise includes taking care of residents and cleanup workers after a spill. Yet, afte *Exxon Valdez* spill, Tatitlek villagers observed that Exxon was willing to spend $800,000 on each sea otl rehabilitation, but nothing or very little on mental health care for people traumatized by the spill. Furthe thousands of cleanup workers got sick during 1989, despite Exxon's worker safety program. I am just lea that hundreds of people may still be sick from overexposure to oil vapors, fumes, and aerosols during the cleanup. All the oil companies promised to "immediately abate any health or safety hazards" (Stipulatior 1.20.1): it seems all the companies, not just the spiller, are responsible to ensure that people don't get sic during the cleanup--and to take care of the ones who do as per the original promise. 110-3

I think that the oil companies are now currently in noncompliance with the federal grant and state le For example, the fire-fighting ability at the tanker terminal is virtually nonexistent. Oily sludge (hazardo waste) has collected several feet deep in tanks at the BWT facility--and the sludge incinerator was neve as per the original facility design. There is still no independent quality assurance program. The continge plans for river spills are grossly inadequate--drills show the plans won't work to contain and cleanup oi spilled into rivers. I'm sure this list is incomplete and pipeline regulators could add to it if they were to seriously look for problems and not just respond to ones brought to their attention by citizens or concer employees. 110-4

In light of these past and still ongoing problems, I strongly disagree with statements made by both th and federal regulators in the draft EIS documents. The Alaska Department of Natural Resources found t companies to be in compliance with the state lease. This determination is obviously a requirement for reauthorization as it has nothing to do with reality.

Federal and state regulatory agencies also stated that the aging 800-mile pipeline and its support sys that were originally built to last 30 years *"can be sustained for an unlimited duration"* with minimal cos change in the operating and maintenance procedures. This statement demonstrates a lack of credibility- no grasp of reality. The recent spate of accidents including the failed response to the Livengood bullet ho spill, and the 21-inch shift in a section of pipeline that went undetected for several months show that bot industry and the regulators are ill-prepared for serious problems along the overland section of TAPS. Th spills at pump stations on pipeline startup after routine maintenance last fall clearly demonstrate this pi is aging and not aging well as frequent spills on startup are one sign of increasing problems that should b anticipated--not ignored--in an aging pipeline. 110-5

I was further shocked and offended by the following statement in the draft EIS. "While the *Exxon Va* spill was a significant event in the operation of TAPS, creating significant benefits to the state and local economy that more than offset the economic damage to the fishing and tourism industries in Prince Will 110-6

Sound, it is unlikely that a spill of such magnitude, even if it occurred again would create the same level economic activity" (DEIS, page 4-7-116).

This offensive statement clearly shows that the government regulators have a completely different perspective of their job of pipeline oversight than we were all lead to believe by the federal grant and stat lease. The original right-of-way documents do not mention that economics of spill cleanup would be wei against economic damages to the few communities at risk. Instead the oil companies promised to protec repair, replace, rehabilitate, etc. fish and wildlife resources, and their habitat--and the regulators are supposed to hold the companies to this promise. Specifically, the companies also promised to protect subsistence resources, lands, and users, which have a zero dollar economy and can't be compared to eco of spill cleanups at all. 110-6 (Cont.)

Oil spills are expensive to clean up--I'm sorry that I can't see this as good for the economy, but that' irrelevant. Even if there was zero economy as measured by exchange of dollars, the oil companies are authorized to operate only if they take steps to minimize risk of oil spills and damage from spills. It's the government regulators' job to see the oil companies are held to this standard--the statement in the draf seems to indicate that the regulators are not doing their job and are out of compliance themselves with t federal grant and state lease.

Finally, I must state that I feel this 45-day public comment period for a project of such national and s significance is counterproductive at best and a sham at worst. The hearings in Barrow and in Cordova w both packed. I did not have time to thoughtfully review the 1,700 page draft EIS because I have been bus trying to earn a living and put up winter food in Alaska's short summer. It appears from statements in th EIS that the government regulators did not have time to thoughtfully review nearly 30-years of TAPS his and compare performance with promises, conditions, and stipulations in the federal grant and state leas the rush on a project of such significance? Over a year ago, the Joint Pipeline Office stated that the comn period would run from July to September, but in keeping with 25 years of broken promises by TAPS ope and government regulators, the regulators have broken that promise too. 110-7

Despite all the obstacles for public testimony, I offer the following recommendations for improving T operations for the next 30 years--and I believe all my comments are well within the scope of this Natio Environmental Policy Act hearing process. I can only support reauthorization for another 30 years if the recommendations are fully addressed and included in the next federal grant and state lease.

#1 Establish a TAPS Citizens' Oversight Group.

Following the *Exxon Valdez* tragedy in 1989, the State of Alaska created the Alaska Oil Spill Commission investigate the root causes of the spill and recommend changes to the oversight system. One of the Commission's central findings was that institutional complacency, both in industry and government, wa cause of the spill. The Commission found that citizens were essential to an effective oversight system bec they bring urgency to protecting the resources they care about and depend upon for their livelihoods. Di bureaucrats, despite their best efforts, do not share this local perspective. To prevent future complacenc thereby prevent future disasters, the Commission recommended creation of citizens' advisory councils f marine **and overland segments** of Alaska's oil transportation system. We only have citizen oversight marine portion of TAPS--the tankers and tanker terminal--and it has proven the wisdom of the Commission's finding. It is time to apply the lessons learned to the overland pipeline. 110-8

As a requirement of renewal, the grant and lease should establish a TAPS COG that would operate completely independently of government regulators and industry: incorporating government and indust "citizen oversight" creates an oxymoron. The TAPS COG should make recommendations directly to the Department of Interior (DOI) and to the Department of Natural Resources (ADNR) or their designees. T COG should be funded through the DOI by the permittees as part of the cost of TAPS operations, and all

members of the TAPS COG and their staff should be paid for their services. The COG contract should be negotiable on the same timeframe as the right-of-way permit; i.e., 30 years. 110-8 (Cont.)

#2 Apply stiff, meaningful penalties for failure to comply

All the laws, regulations, stipulations, and oversight in the world are forever inadequate without mea penalties and enforcement. Monetary fines are dwarfed by enormous profits, and the regulators are cert not going to shut down the oil flow as a penalty for noncompliance––the nation has become too depend upon this energy source. The track record of the oil companies show that it has acted like a child who kn is never going to be disciplined. This was not what the American public was originally promised or led to believe would happen.

Some possibilities for meaningful penalties for noncompliance by the oil companies include requirem for: 1) reporting the circumstances of noncompliance to their shareholders in quarterly newsletters as th events unfold (not after the fact); 2) CEOs and other responsible officers of oil companies to conduct pu service in the TAPS corridor communities most at risk from the consequences of the noncompliance; 3) accruing penalties with interest on a daily basis as long as the infraction occurs; and tying penalties in w cost of the fixing the problem so that penalties are 10 times the money saved by failure to do the mainter work in a timely manner. This latter would force owners to change perspective and view maintenance as *savings* compared to prospective penalties. 110-9

#3 Require independent verification of spill volume as a condition of lease renewal.

Spill penalties for damages to natural resources such as fish, wildlife, public lands held in the public t are based on the volume of oil spilled––as reported by the spiller. One way to reduce the risk of spills an resulting damage to the environment and worker and public health and safety––one of the promises of t original agreement and right-of-way leases––is to penalize TAPS owners, or responsible parties in the ca TAPS tanker spill, for the correct amount of oil spilled.

For example, Exxon underreported how much oil it spilled. In an unpublished investigation on file at Alaska Resources Library and Information Services, the State of Alaska found Exxon spilled about 35 mi gallons. Exxon paid the American public one billion dollars for damage to public resources from a suppo 11 million-gallon spill: by underreporting its spill by one-third, the company only paid for one-third of th damages and essentially saved itself two billion dollars. 110-10

Independent verification should be required as a new condition of lease renewal. Further, stipulation specify that government regulators and citizen oversight councils, either separately or jointly, conduct th assessment and agree upon the volume spilled before spill penalties are assessed.

#4 Thoroughly review and update the original right-of-way grants and stipulations i light of past experience, current science, new technology, new laws, and public comm

The federal grant and state lease are three decades old and no longer reflect current science, technolo advances, and law changes. For example, global warming and melting permafrost threaten to make at le one-third of the 77,000 vertical support members of the TAPS unstable with potentially catastrophic eff the pipeline. Studies from the *Exxon Valdez* spill show that oil is 1,000 times more toxic previously thou and that it can cause long-term environmental damage. Federal laws are still based on outdated researc the 1970s and 1980s and are grossly under-protective of fish and wildlife. This makes the original promi protect fish, wildlife, and habitat even more important as basically these promises mean the owners and regulators will take measures *beyond existing laws* in order to protect fish and wildlife, habitat, and oth subsistence needs. 110-11

Further, the original grant and lease agreements were signed by some companies that no longer exist

because of mergers and buyouts. I assume, but would like proof, that the new companies are signatories current right-of-way grants and leases. 110-11 (Cont.)

#5 Grant and lease renewals should be made conditional on satisfactory completion within 12 months of the renewal––of an independent field-based evaluation of the en TAPS including hardware and management.

In 1993 a series of independent and industry audits found TAPS was in an imminent state of collapse several major system wide problems including hardware problems, technical issues, and management is 1994 was proclaimed to be the "year of fixes" by the Alyeska president at the time, but fixes proved elusiv example, the highly touted fiber optics cable, which was supposed to replace the old communication syst didn't work as planned and was quietly shelved. 110-12

No one knows how many problems were actually fixed of those disclosed in 1993, or what new proble remain unfixed because there has not been any independent audits of the TAPS since 1993. This is not acceptable for a system that provides a significant portion of the nation's energy demands and the bulk c state's operating revenues, and can wreak environmental, social, and economic havoc on Alaska's comm residents, and federally recognized tribes.

#6 Grant and lease renewals should be made conditional on satisfactory completion annual independent audits of TAPS operations and management and 5-year in-depth independent field-based evaluations of the entire TAPS, including hardware and management.

I am concerned that the recommended alternative––to renew the permits for another 30 years––is v long for this particular pipeline: it is essentially double its design life. If reauthorization is granted, it shc made **conditional** upon satisfactory completion of independent audits every year with in-depth audits years as stated above. The Prince William Sound Regional Citizens' Advisory Council has to pass an ann audit and review of operations to be recertified. Nothing less should be expected for the entire TAPS, wh much more at stake than the advisory council! 110-13

#7 Immediately escrow TAPS DR&R funds and use interest to finance the TAPS COG and measures to improve protections for environment, fish and wildlife, and worker and public health and safety.

Funds intended for future dismantling, restoration, and removal of the TAPS have been collected fro TAPS oil companies and passed through to parent companies, resulting in enormous profits––and no p money for future DR&R. This is a breach of public trust––and yet another example of corporate irresponsibility and accounting fraud. Government regulators need to take immediate action to remedy problem. 110-14

I want these funds to be escrowed now––**before any grant and lease renewals**––as a sign of go efforts and intention by oil companies and government regulators to the American public. The public wa promised this once: we don't need to be promised it twice. Further, earnings from the funds can be pled towards payment for fulfilling other stipulations under the original agreements––such as protecting the environment, public resources, and worker and public health and safety.

#8 Require independent, long-term epidemiology studies, and short- and long-term treatment of physical and mental health effects, for workers and affected residents a major TAPS spills. 110-15

08/21/2002

Oil spills were--and still are--an anticipated side effect of TAPS construction, operation, maintenar and termination. That's why there are oil spill contingency plans; that's why the oil companies promised condition of operating, to protect public and worker health and safety. But a promise is worth nothing w follow through: after the *Exxon Valdez* spill this promise was ignored. There was inadequate financial su to meet increased needs of mental health facilities in affected communities and short- and long-term ph health care needs of cleanup workers were unmet. This is simply unacceptable--and in noncompliance permits.

TAPS owners should be required to pay for increased mental health care in the years during and immediately after a spill in all affected communities. This care should include focused peer listening circ mitigate community-level emotional trauma. Since oil spill cleanups are considered a hazardous waste cl long-term health care studies should be required as the health symptoms associated with crude oil expos (long-term respiratory damage; disorders of the central nervous system, liver, kidney, blood, and skin; endocrine disruption; and immune suppression) could take years to manifest as physical health problem companies should also be required to provide chemical decontamination treatments for individuals with health symptoms from high body levels of crude oil and other substances present during the cleanup. Individuals who become disabled from overexposure to chemicals present during the cleanup should be compensated by the oil companies, as should the estate of individuals who die from overexposure to che present during the cleanup. 110-15 (Cont.)

#9 Transfer of TAPS operations to single source with no North Slope production.

The oil company owners consistently cut costs on TAPS operations and maintenance to increase thei profits. This dynamic has created an internal conflict of interest, essentially, between the owners and the interest. While the oil company permittees promised in the right-of-way leases to take all 'reasonable' or 'appropriate and adequate' steps to protect the environment, fish and wildlife, and public and worker he and safety, these adjectives are relative when viewed from different perspectives. What seems reasonabl oil companies, who measure the cost of prevention against their profits, may not seem reasonable to the especially those who measure the cost of spills against their livelihoods and health. The track record sho the oil companies have profited handsomely at the public's expense. 110-16

By transferring the operation, maintenance, and termination of TAPS to a single source with no Nort production, the internal conflict of interest is broken. This operator would take more 'reasonable' steps, the public perspective, to reduce its liability from spills by attention to TAPS operations and maintenanc Performance bonds could be required for additional protection of the public interest.

Thank you for considering these points.

Sincerely,

Pete Mickelson,Ph.D.

08/21/2002

Responses for Document 00110

00110-001: The JPO produced TAPS engineering report No. 00-E-018, Valdez Marine Terminal Ballast Water Treatment Plant: Compliance with Agreement and Grant Section 23 (May 24, 2000). The report satisfies the 5-year review process.

00110-002: The federal action addressed in this EIS is renewal of the right-of-way for the TAPS. While renewal would result in continued operation of oil tankers in Prince William Sound, that activity is beyond the limits of the right-of-way corridor and thus, not under the jurisdiction of BLM. Moreover, the BLM has no authority over oil spill cleanup and damage assessment within Prince William Sound. Regulation of activities associated with the transport of oil by tankers in Prince William Sound is under the jurisdiction of the U.S. Coast Guard and the U.S. Department of Transportation. Analysis of impacts to fish and wildlife in Prince William Sound is included in the DEIS to provide perspective within which the direct and indirect impacts of the proposed action and alternatives are addressed.

The BLM and member agencies of JPO enforce a number of stipulations that protect of fish and wildlife resources within the right-of-way corridor. The DEIS analysis did not find any significant impact to fish or wildlife resources associated with TAPS operations and maintenance within the right-of-way corridor.

00110-003: Section 4.4.4.7, “Human Health and Safety,” provides a detailed analysis of the potential effects of oil spills on human health.

The BLM and member agencies of the JPO are committed to the protection of human health and the environment. The Federal Grant and authorizing legislation (TAPAA) provide unprecedented authority to BLM in assuring the protection of human health and the environment. Stipulations (the guiding conduct of operations for the operator of TAPS) within the Federal Grant contain numerous provisions that are protective of human health and the environment.

00110-004: The JPO produced TAPS engineering report No. 00-E-018, Valdez Marine Terminal Ballast Water Treatment Plant: Compliance with Agreement and Grant Section 23 (May 24, 2000). The report satisfies the 5-year review process.

00110-005: It is correct that the effects of aging have the potential to impact the integrity and reliability of any mechanical system. However, age alone does not dictate reliability or performance. Myriad factors can impact system performance. For example, the manner in which mechanical systems are operated and maintained can greatly influence their long-term integrity, reliability, and performance.

Utilizing its oversight authority, the JPO ensures that APSC's operating and maintenance procedures take all potential impacting factors into account and are sufficient and appropriate to maintain TAPS integrity. The JPO also has the authority to direct APSC to undertake changes, repairs, or upgrades when that is not the case. Under the reliability centered maintenance (RCM) program, all TAPS subsystems are being carefully evaluated for the consequences of their failure and will have maintenance regimens or remanufacture, overhaul, or replacement schedules established that preclude such failures from occurring, if they would have an adverse impact on public safety or the environment.

The text box in Section 4.1.1.8 provides a synopsis of the MP 400 bullet hole incident. Details of the spill and the response are provided. Changes to the pipeline's spill contingency plan that are being made as a result of lessons learned are also discussed.

Each of the three spills that occurred on start-up after a maintenance-related shutdown have been carefully evaluated, and causal factors have been identified. The JPO has required APSC to revise its shut-down and start-up procedures to prevent reoccurrence. APSC is also required to conduct drills on its procedures to ensure they are correct and complete. Also, APSC has made modifications to piping at pump stations to enhance cold restart capabilities. Summaries of the three incidents are included in CMP Report #11, issued in April 2002. See also Section 4.1.1.4.

00110-006: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00110-007: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00110-008: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00110-009: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00110-010: The BLM and the member agencies of JPO investigate all significant spills to verify the spill volume. There has been no evidence to date that past spill volumes have been reported inaccurately. If natural resource damage claims occur because of a spill, the U.S. Fish and Wildlife Agency or National Marine Fisheries Service conduct studies to evaluate damage to natural resources.

00110-011: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00110-012: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00110-013: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00110-014: The reader is directed to the discussion of escrow funds found in Section 2.5.

00110-015: Section 4.4.4.7, "Human Health and Safety," provides a detailed analysis of the potential effects of oil spills on human health.

The BLM and member agencies of the JPO are committed to the protection of human health and the environment. The Federal Grant and authorizing legislation (TAPAA) provide unprecedented authority to BLM in assuring the protection of human health and the environment. Stipulations (the guiding conduct of operations for the operator of TAPS) within the Federal Grant contain numerous provisions that are protective of human health and the environment.

00110-016: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

From: <andornt@nushtel.com>
To: <ADNR_Administrative_Record@jpo.doi.gov>, <Pat_Pourchot@dnr.state.ak.us>, Tony Knowles <tony_knowles@gov.state.ak.us>, Fran Ulmer <Fran_Ulmer@gov.state.ak.us>
Date: 8/16/2002 1:23 PM
Subject: BLM TAPS Right of Way Renewal

To: BLM TAPS Renewal EIS
Argonne National Laboratory EAD/900
9700 S. Cass Ave.
Argonne, IL 60439

Alaska State Dept. of Natural Resources
411 W. 4th Ave
Anchorage, Alaska 99501

To Whom It May Concern:

My concerns that should be addressed before a Trans Alaska Pipeline System renewal is approved follow:

1) Too Short Comment Period: Hopefully the response time for this renewal process could be extended. People from across Alaska will not have had an opportunity to comment because of the short time frame. Rushing forward on something as important as this issue seems short sighted. 111-1

2) Oversight Committee for TAPS: I support such a committee because the current structure is not broad enough to take into consideration the local governments, tribal governments, tourism businesses, Native groups, environment interests, and other's concerns. The pipeline is 800 miles long and its operation for the next 30 years should be under the scrutiny of a group similar to the Prince William Sound Regional Citizens' Advisory Council. This group has proven effective in its oversight activities and such a group would be beneficial to Alaska's interests as we look at an aging oil pipeline that could have enormous negative results in the event of a major catastrophic oil spill. 111-2
The oil companies objections to oversight is shallow. The amount of money it would cost to ensure safe operations of a 30 year old oil pipeline is cheap indeed if the oversight prevents an oil spill that would cause irreparable damage to our environment.

3) Length of the Lease Renewal: The period of 30 years seems to be too long of a lease period. It would make more sense to have a 10 year renewal period so that Alaskans would have another opportunity to review the operational health, safety, and security of the oil pipeline as it advances in age. I would recommend that the lease renewal be shortened to 10 years.

4) Hiring Practices of TAPS: The TAPS record of hiring Alaskan residents and Alaska's Native people is dismal. We must insist on making sure that by the end of this renewal process that the TAPS is operated 111-3

largely by an Alaskan work force. Very few Rural Alaskans participated in the construction of the pipeline and very few are involved in its maintenance and operations. I would recommend that TAPS be required to work with our school districts, unions, and the University of Alaska to train a work force that will operate and maintain the entire system from top to bottom. That includes management and executive positions. We should set a goal of at least 75% of the TAPS work force will be Alaskans residents by 2012. 111-3 (Cont.)

5) Clean Up and Restoration Escrow Fund: The state of Alaska and its citizens must require a clean up and restoration escrow fund be set by law. Recovery operations will require a large investment from the oil industry and they should have an account set up that is dedicated to restoring the lands that are owned by the people of Alaska. It does not matter how far ahead the escrow fund will be needed but it should be in place before we approve another ROW lease renewal. 111-4

6) Notice of TAPS Shutdown: I do not think the oil industry knows when it will become necessary to shut down TAPS for economic reasons. Therefore, the state of Alaska and its people should be informed at least 24 months prior to the time that oil industry is planning to shut down TAPS. Alaska will need to have advance notice so that it can properly plan for the impact of TAPS shutting down its operations. At this time TAPS should give Alaska its detailed plan of clean-up and restoration. No renewal should be granted with out this provision in place. 111-5

7) Integrity Analysis: the state of Alaska and its people need to be given a detailed analysis of the greatest weaknesses that threaten the integrity of the safe operation and maintenance of TAPS. In addition, the oil industry needs to detail their strategies on how they will combat these weaknesses in order to guarantee safe operation of the oil pipeline. This analysis should be a part of the renewal process. Outside experts in this type of analysis should be consulted so that Alaska will know that the pipeline is indeed being operated in a safe and environmentally friendly manner. 111-6

Thank you for listening,

Nels Anderson, Jr.
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Dillingham, Alaska 99576
907-842-2366
andornt@nushtel.com

Responses for Document 00111

00111-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00111-002: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00111-003: The recommendation made by the comment would involve a change to the Grant of Right-of-Way for Trans-Alaska Pipeline, which is beyond the scope of this EIS. The document currently evaluates the existing Federal Grant (see Appendix B). As noted in Section 4.3.21, Section 29 of the Grant of Right-of-Way for Trans-Alaska Pipeline addresses the hiring of Alaska Natives, who likely would be state residents (though no requirement for residency is included in Section 29).

00111-004: The reader is directed to the discussion of escrow funds found in Section 2.5.

00111-005: A proposal to permanently shut down TAPS would be a significant event that would not escape public notice. Requirements for dismantlement, removal, and restoration of the facilities are very specific, and there is ample authority to enforce them.

00111-006: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

Testimony of Louis F. DeLong

BACKGROUND:
I have 42 years of diversified experience in the petroleum industry. Specifically I have extensive operational exposure in the following fields of the petroleum industry; namely, the refining, engineering, economic, finance and general/senior management.

I have had working assignments in both the U.S.A. and Foreign countries. Some of the more senior positions that I have held are:
---General Manager/Chief Executive Officer [CEO] of Esso Malaysia/Indonesia
---CEO North Pole Refining, Alaska
---CEO Earth Resources of Alaska
---Executive V.P. of Earth Resources Corp.
In addition I have been a Senior Advisor to foreign Gov't[s] in Southeast Asia, the Middle East and Asia.

I am here today to testify against granting a renewal of the operating license to Alyeska.

My reason[s] for the opposition to a renewal is that the granting of the license to Alyeska is not in the best interests of the United States and Alaskans; this viewpoint is from both an economic and environmental basis.

Since my time is limited I will expand upon the economic issues and leave to the many "other" people testifying today their reasons [from an environmental viewpoint] why the renewal license should not be granted to Alyeska.

The reasons for my opposition to an Alyeska renewal are the following:

1. Alyeska is an operating company owned and controlled by a foreign company- a company that uses its' control of the pipeline to discourage the development of Alaska's oil fields. It does so by limiting the throughput of oil through the pipeline. 112-1

As an example I use the case of Conoco that found a BILLION barrel oil field but could not bring it to a commercial success because it could not obtain sufficient capacity in the pipeline. Conoco was told this while at the same time Alyeska was dismantling pump stations and reducing the pipeline capacity.
The probability of finding a BILLION barrel oil field is very low yet this rare find could not be brought to a commercial success because of the restrictions imposed SUBJECTIVELY on pipeline capacity.
In a hearing before the Federal Trade Commission [FTC] the Chairman of Conoco expressed his frustration that" the manipulations" by the foreign company prevented his company from development of one of the largest oil fields ever discovered in the USA. He also testified to the FTC that the pipeline tariff

from the North Slope to Valdex was unrealistically high and again was a determent to developing oil on the North Slope.
It is interesting to note that the owners of the Alyeska pipeline are always listed in the top five most profitable transportation companies listed in the financial journals. The high pipeline tariff not only contributes to very high returns on the Alyeska pipeline but this high tariff also amounts to a subsidy that each potential new "oil producer" must pay the pipeline owner. This unrealistically high tariff adversely affects 6he economics of the development of the new oil field.
It reminds one of what occurred when Standard Oil controlled the Penn. Railroads and received a rebate on all oil shipped. This led to the Interstate Transportation Commission

2. The pipeline owners' delay/discourage the Production of Alaskan oil. They tend to go overseas to look for oil since it allows them to participate in the control of the oil production in foreign countries that would otherwise be more fully developed/produced by "Independents" who are in need of oil production. 112-2
The fact that the present owners of Alyeska have made the exploring/development of oil is Alaska so unattractive for anyone other than they means that they have tied up the Alaskan oil potential to their timetable and can concentrate on other geographical areas that are open to competitive forces.
It is no accident that the only companies on the North Slope producing/exploring for oil are the owners of the Alyeska pipeline. Their drilling activity on the North Slope is less than 16 "exploratory" [?] wells [per/yr] vs. 4000 plus wells [per/yr] in Texas.

A question that should be asked is," how profitable is looking for oil in Alaska for the owners of the Alyeska pipeline?"
If one looks at the Annual Reports of ARCO and STANDARD OIL of OHIO [STAN.] two of the original owners of the pipeline and two of the three original developers of Alaskan North Slope Oil we find the following financial returns before and after the Alaskan oil was developed by them.
In the year before the inclusion of Alaskan oil in the financial results of ARCO and STAN. neither company showed a profit greater than $80 million dollars. In the first full year of Alaskan oil production each company reported over 2.2 BILLION dollars in profit.
The second question that must be asked is "Are there attractive areas in Alaska to look for oil?" The answer is absolutely YES.
Alaska has 14 to 17 major sedimentary basins [structures that can hold major deposits of oil] yet only one basin has been developed. It is estimated [conservatively] that proven/probably/possible reserves exceed 70 Billion barrels.
If all the above is true then why don't we see more exploration/development of oil in Alaska?
As I mention, the oil companies need to control the production of oil so that it's price doesn't collapse. To gain this control they keep their hand in the major producing areas of the world and try as best they can [and do so very successfully] to control/limit the production of oil to stay in line with demand. To

do otherwise will mean that whenever the production of oil exceeds the demand the price of oil falls very dramatically as we have seen in the middle 90's and late50's/early 60's.

3. The Royalty and Severance rates that the State of Alaska is receiving is very low compared to what other areas of the world are/have been receiving. Alaska is obtaining" rate levels" that were in effect in the lower 48 States where/when production from an oil well was limited to small/limited producing wells.
Since the 1960's the oil companies in high potential producing areas such as Alaska have entered into production sharing agreements which offer the "Host country" 50 to 85% of the oil /production. Also, the oil companies give large signing bonus in the hundred of millions of dollars.
These terms don't discourage oil companies from seeking leases since usually anywhere from 10 to 25 companies offer bids.
One asks why don't we see these types of bids being offered In Alaska?. I refer you to my example of the Conoco Oil Co. and my discussion on how the control of the pipeline capacity discourages other oil companies other than those that own the pipeline from seeking oil in Alaska.

112-3

4. The control of the Alyeska pipeline by the Present North Slope oil producers is adversely affecting United States Political and Foreign Relation Policies.
Because Alaska oil production is "curtailed" it is adversely affecting our balance of payments. At present the USA is importing about 15 million barrels of oil per day at a cost of 370 million dollars per day or 140 billion dollars per year.
Last year the US balance of payments was a negative 140 Billion dollars or just about what our foreign oil bill was equal to.
Demand in this country is increasing at about I million barrels per day per year over the next 2 to 4 years which will increase our balance of payments deficit. The question is "how long will foreign creditors {China and Japan] subsidize our appetite for foreign exchange before they ask for large [political] offsets?" Not too long I suspect.
We also see today that the deficit oil production in the United States is having an effect on our foreign policy. Will the US be subject to the same "cutoff" in oil supplies that occurred in the mid 6o's? This time it could get a lot more severe. Today we obtain about 75% of our oil from foreign sources. Back in the 60's we only required about 30% of our oil from abroad.
One environmental fall out from being dependent upon foreign crude is that a great amount of the foreign crude is moved in foreign flag tankers. These foreign flag tankers are usually registered in countries that have lax safety/engineering /training standards for the vessels and crews and as such have poor environmental records.

112-4

5. Alaskan crude is priced low relative to "other" crude oils' in the world market. This is important to Alaskans.

112-5

The pipeline owners sell the North Slope crude to themselves so the transfer price is immaterial to them. In fact by selling to themselves they save on Royalties and severance taxes and thereby increase their overall profits.
This low transfer price for Alaskan crude is a further disincentive to those producers that don't have refining/marketing operations to process their Alaskan crude.
The question is asked how much of a debit to pricing is associated with Alaskan crude?. If one looks at the "crack spread" [value of the products made from the crude oil in question less the cost of the crude oil] we find that Alaskan crude has a 6 dollar a barrel plus advantage over other crude[s]. In effect Alaskan crude is priced 6 dollars below the market.
What does this mean to Alaskans. Since about 13 billion barrels of crude have been produced from the North Slope and the price is understated by about 6 dollars a barrel the value of Alaskan crude has been understated by about 80 billion dollars; the Alaskan share of this is about 25% or about 20 billion dollars. This sum is about what Alaska has in its Permanent Fund; it could be twice as large.

CONCLUSION:
The pipeline owners use environmental issues/arguments to deflect investigation/review of economical issues. These latter issues have a very significant affect on Americans and Alaskans especially in the following areas; namely:
The Political Arena: Dependency upon foreign oil limits US ability to negotiate freely with oil producing nations. 112-6
The World Financial Markets: Hugh imbalances on the US foreign trade [all the imbalance due to petroleum imports] jeopardize the US financial Institutions ability to maintain a free market in world trade.
The control of oil production by certain oil companies [and OPEC] artificially inflates the price of oil and has a damping effect on the productivity of nations.

Lawrence T. De Levy 8/19/02

Responses for Document 00112

00112-001: Thank you for your comment.

00112-002: Thank you for your comment.

00112-003: Issues associated with determining royalty and severance rates are outside the scope of the renewal process and this EIS.

00112-004: Thank you for your comment.

00112-005: Thank you for your comment.

00112-006: Sections 3.23, 4.3.19, 4.5.2.19, and 4.6.2.19 provide detailed analyses of the local, state, and national economic issues that are direct or indirect components of TAPS renewal decisions. World politics and energy policy issues are beyond the scope of this renewal process.

Regional Citizens' Advisory Council / *"Citizens promoting environmentally safe operation of the Alyeska terminal and associated tankers."*

In Anchorage: 3709 Spenard Road / Anchorage, Alaska 99503 / (907) 277-7222 / FAX (907) 277-4523
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MEMBERS

Alaska State Chamber of Commerce

Alaska Wilderness Recreation & Tourism Association

Chugach Alaska Corporation

City of Cordova

City of Homer

City of Kodiak

City of Seldovia

City of Seward

City of Valdez

City of Whittier

Community of Chenega Bay

Community of Tatitlek

Cordova District Fishermen United

Kenai Peninsula Borough

Kodiak Island Borough

Kodiak Village Mayors Association

Oil Spill Region Environmental Coalition

Prince William Sound Aquaculture Corporation

August 16, 2002

BLM TAPS Renewal EIS
Argonne National Laboratory EAD/900
9700 South Cass Avenue
Argonne, IL 60439

Dear Sir or Madam:

The Prince William Sound Regional Citizens' Advisory Council (PWS RCAC) has reviewed the "Draft Environmental Impact Statement Renewal of the Federal Grant for the Trans-Alaska Pipeline System Right-of-Way" (DEIS) and we are pleased to submit our comments regarding it. Please see attached report, "Comment and Concerns Regarding Draft Environmental Impact Statement (DEIS) for Trans Alaska Pipeline System (TAPS) Grant and Lease as Compiled by Prince William Sound Regional Citizens' Advisory Council" for a compilation of the comments.

Our concerns lie mainly in assuring our members and the citizens that we represent that all operational risks and impacts of TAPS to the environment are known and do not increase during the renewal period. PWS RCAC wants TAPS to be verifiably well maintained and operated within its design constraints.

We note that the DEIS is quite lengthy at 1700 pages. With only 45 days to prepare comments, it is possible that errors have found their way into our comments. For this we apologize in advance. Hopefully, any errors will be minor in nature and will not affect the substance of the comments. Nevertheless, if errors are found we would be pleased to correct any that you might chose to bring to our attention.

Our comments are quite detailed and a thorough review of the report is suggested. Nevertheless, its contents can be summarized as follows:

- The DEIS has not adequately assessed the historic impact of TAPS either from normal operations or from catastrophic incidents. 113-1
- The assessment of probable impact from normal future operations of TAPS is incomplete. 113-2
- Potential impact caused by catastrophic incidents has been largely understated. 113-3
- Excessive reliance on incomplete data provided by industry coupled with a failure to consider relevant data from government and citizen sponsored research have rendered suspect many of the assessments of impact. 113-4
- Use of obsolete literature has rendered suspect many of the assessments of impact. 113-5
- The environmental impact of inadequate maintenance programs has not been considered in depth. 113-6

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- The DEIS cites regulatory compliance as evidence of benign environmental impact. 113-7
- The DEIS fails to consider the environmental impact of off-normal operations of TAPS. 113-8
- Assessments of environmental impact do not follow from the data cited that purport to support them. 113-9
- Issues such as the ownership model which could have significant adverse environmental impact have been summarily excluded from the DEIS. 113-10
- Numerous inconsistencies and errors of fact and inference have been identified in the DEIS. 113-11

Consequently, we do not believe the environmental impacts, past, present, and future, as cited in the DEIS are accurately and completely portrayed. We request that issues cited above and described in detail in the report be examined and resolved prior to issuing the final Environmental Impact Statement. 113-12

Adequate maintenance of TAPS is an important issue considered in the Draft Environmental Impact Statement (DEIS). We have analyzed the JPO's Reliability Centered Maintenance activities and our comments regarding TAPS condition and useful life can be found in "Review of Reliability Centered Maintenance Documents Right-of-Way Renewals Project Valdez Marine Terminal RCAC Contract No: 552.02.01." This report appears to be relevant to the decision-making processes associated with some of the issues cited above. We have also attached a copy of this report to this letter. 113-13

In making the right-of-way renewal decision we recommend that the systems integrity of TAPS both with respect to adequacy of operations and with respect to mechanical integrity be made a primary consideration in any renewal decision. We recommend that the systems integrity be reviewed in detail at least once every five years during any renewal period and that this review be made a condition of renewal of the Grant. 113-14

PWS RCAC staff would be pleased to provide any additional information to assist you in revising the DEIS. Let us know what you need.

Sincerely,

John Devens, Ph.D.
Executive Director

Cc: Jerry Brossia, Authorized Officer
Richard Ranger, Alyeska Pipeline

Attachments:
1. "Comment and Concerns Regarding Draft Environmental Impact Statement (DEIS) for Trans Alaska Pipeline System (TAPS) Grant and Lease as Compiled by Prince William Sound Regional Citizens' Advisory Council"

2. "Review of Reliability Centered Maintenance Documents Right-of-Way Renewals Project Valdez Marine Terminal RCAC Contract No: 552.02.01."

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00113

Comments and Concerns Regarding Draft Environmental Impact Statement (DEIS) for Renewal of Trans Alaska Pipeline System (TAPS) Grant and Lease as Compiled by Prince William Sound Regional Citizens Advisory Council



James R. Payne
Thomas H. Kuckertz
Mace G. Barron
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John R. Clayton, Jr.

Contract No. 552.02.02

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August 14, 2002

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1 DEIS is a sizeable document.

1.1 Considerable work and study of literature.

The Draft Environmental Impact Statement (DEIS) is a large document. Its1700 pages of text, maps, tables, and charts demonstrates that considerable effort went into preparing the document. Many hundreds of literature citations are made documenting the present state of the Trans-Alaska Pipeline System (TAPS) and how it will operate during the renewal period.

We note that three renewal periods were considered: (1) 30 years; (2) less than 30 years, and (3) no renewal. It appears that a renewal period of 30 years is preferred with most of the analysis devoted to the maximum renewal permitted. Initially, the Prince William Sound Regional Citizen's Advisory Council (PWS RCAC) viewed a 5-year renewal period as the most desirable; however, an analysis of that position indicated that our concerns lay mainly in assuring our members and the citizens that we represent that all operational risks and impacts of TAPS to the environment are known and do not increase during the renewal period. PWS RCAC wants TAPS to be verifiably well maintained and operated within its design constraints. Consequently, we recommend that the systems integrity of TAPS both with respect to adequacy of operations and with respect to mechanical integrity be reviewed in detail at least once every five years during any selected renewal period. 113-15

1.2 May be greatest single source of reference data on TAPS

The DEIS when completed will contain in one place the greatest amount of data and information likely to ever be publicly available on TAPS. This data includes detailed descriptions of how TAPS works, the physical environment in which TAPS operates, and the life supported by the physical environment. This information is in addition to voluminous quantities of raw data taken from literature citations and other sources. PWS RCAC is very interested in making sure that the DEIS is complete and without errors. Our comments identify issues, both general and specific, that appear not to have been addressed in the DEIS, and we provide recommendations for revisions to the DEIS to include these. Additionally, we have identified errors in the text, and again we make specific recommendations for corrections.

A major point needing clarification throughout the DEIS relates to the fact that descriptions of biological resources relevant to the TAPS ROW and associated operations appear to be based on assessments of present-day biological resources after almost 30 years of routine TAPS operations. Minimal discussion is provided regarding impacts to these resources that may have occurred as a result 113-16

of the routine TAPS operations over the approximately 30-year period. As noted in Section 1.2 of the DEIS, "NEPA regulations require federal agencies to analyze the totality of the affected environment associated with a federal action, including cumulative impacts ... cumulative impacts include past, present, and reasonably foreseeable future actions." It seems reasonable that "past" and "present" actions in the preceding language should consider or address impacts that may have occurred due to routine TAPS operations over the past approximately 30 years. With the exception of limited discussions regarding impacts of the Exxon Valdez spill (e.g., Section 3.11.5; Section 3.19.1.3 for fish in Prince William Sound; and Section 3.22.3.5 for sea otters in Prince William Sound) the impression from the DEIS is that the present-day status of biological resources for the TAPS ROW and associated areas represents the background or non-impacted situation for the resources. This may or may not be accurate, and needs to be acknowledged and addressed in the DEIS.

113-16 (Cont.)

Considerable discussion of sociocultural and socioeconomic aspects of TAPS can be found in the DEIS. With respect to subsistence economies, the DEIS appears to approach subsistence activities using a cash economy yardstick. Unfortunately, this can cause a low value to be placed on the destruction of all or part of a subsistence economy and tends not to give full consideration to the cultural damage to users of the subsistence resources. The DEIS needs to place additional emphasis on the cultural impacts associated with loss of subsistence resources.

113-17

The DEIS appears to concentrate on normal operations of TAPS with regard to assessing impact to the environment. Although environmental impact from catastrophic events has received some discussion; discussion of off-normal TAPS operations and environmental consequences associated therewith has received little attention in the DEIS. Off-normal operations can be viewed as operation of a subsystem under conditions different than that anticipated in its design or outside or at the margins of its design envelope. A good example is the operation of the gravity separation process of the Ballast Water Treatment Facility (BWTF) when one of 3 process tanks is out of service for major maintenance and the remaining 2 tanks are operating at decreased separation capacity because properties of the oil have changed from that assumed.

113-18

Discussion of decommissioning and dismantlement (D&D) of TAPS is discussed. Very few people seem to view not renewing the rights-of-way as a viable option. Consequently, the feasibility of TAPS D&D as discussed in the DEIS is receiving little attention. One item of note is that the DEIS mentions TAPS as a possibly historic structure. Quite possibly an historic-structure designation could prevent the dismantlement of TAPS, an option not considered in the DEIS.

113-19

1.3 Right or wrong, DEIS may become the last word in publicly available information on TAPS

Prince William Sound Regional Citizens' Advisory Council (PWS RCAC) is concerned about whether the DEIS is complete and without errors. One obvious error in the DEIS pertains to economic benefits of oil spills. A proper analysis of the economic data cited in section 4.7 should indicate that on the whole there are no economic benefits to an oil spill and that if there are no economic benefits to be had, any damage to fishing and tourism cannot be offset by such benefits. And, the comments in the Executive Summary stating that the most significant impacts will be economic can be true only if catastrophic spills are avoided. 113-20

2 General concerns

2.1 Time period for public comment period is too short

The 1700 pages of the DEIS and hundreds of literature citations (including many Alyeska Pipeline Service Company (Alyeska) reports and personal communications) cannot be assembled, read, and analyzed in the allotted 45 days. The lack of availability of supporting documents, especially the personal communications, itself imposes delays inconsistent with a 45-day review period. 113-21

In addition, there are many citations to the literature and industry/government reports that are called out in the text of the DEIS but not listed in the accompanying reference sections for each chapter. A number of these citations are critical to support or refute issues of concern to the PWS RCAC. Below is a list of citations that the PWS RCAC review identified as missing from the references. It is highly probable that there are others as well, and a compete cross-check of cited literature and the reference sections should be completed for the final EIS. Missing or incorrect references identified by PWS RCAC include:

ADF&G. 1986b. (Cited in text of DEIS but not listed in the references for any chapter.)
Angliss et al. 2001. (Cited in text of DEIS but not listed in the references for any chapter.) 113-22
Bence et al. 2000. (Cited in text of DEIS but not listed in the references for any chapter.)
Boehm et al. 1998. (Cited in text of DEIS but not listed in the references for any chapter.)
Boehm et al. 2001. (Cited in text of DEIS but not listed in the references for any chapter.)
Calkins 1994. (Cited in text of DEIS but not listed in the references for any chapter.)
Carlson and Kvenvolden. 1996. (Cited in text of DEIS but not listed in the references for any chapter.)

Davis 1984. (Cited in text of DEIS but not listed in the references for any chapter.)
Green 2002. (Cited in text of DEIS but not listed in the references for any chapter.)
Hood et al. 1979. (Cited in text of DEIS but not listed in the references for any chapter.)
Hostettler et al. 2000. (Cited in text of DEIS but not listed in the references for any chapter.)
Johnson and Garshelis. 1995. (Cited in text of DEIS but not listed in the references for any chapter.)
Morstad 1999. (Cited in text of DEIS but not listed in the references for any chapter.)
Short, J.W. and R.A. Heintz. 1998. (Incorrectly cited in text of DEIS as 1998. It should be 1997, but it too is not listed in the references for any chapter.)

113-22 (Cont.)

Finally, the time period chosen for citizen comment coincides with the peak times for subsistence, tourism and fishing activities. Many interested citizens will be working their summertime businesses and will not have time to comment. PWS RCAC requested via the Trustees for Alaska that the comment period be extended by at least another 45 days, but that request was denied.

113-23

2.2 Issues excluded from Scope

Issues summarily excluded from the scope of the DEIS may have significant environmental impact. For example, the ownership model is important because owners control use of resources devoted to minimizing environmental impact. Impacts of various ownership models should be examined. In particular, the decision making practices under the current ownership model appear to allow the owners committee a considerable role in management of operations having potentially significant environmental impacts. Recently, the owners directed that the maintenance budget be cut by 10% to 25% "without decreasing scope." How can tens of millions of dollars worth of maintenance be eliminated with out lessening the scope and what is the environmental impact?

113-24

Renewal conditions requiring that TAPS be operated and maintained in accord with the assumptions underlying the predictions of future impact are appropriate and very important. TAPS was new in 1978 and a policy of deferred maintenance likely had minimal environmental impact. Deferred maintenance on an aging system that was designed to have a life of 30 years has a potentially much higher risk of significant and adverse impact. Any renewal of the grant and lease should include requirements for determining the present state of TAPS and a 5 year cycle of verifying that it is being properly maintained. A complete

113-25

and independent systems audit will accomplish the verification. Regulatory enforcement tools sufficient to enforce regulatory compliance must be given to regulators. 113-25 (Cont.)

Citizen's oversight groups such as Prince William Sound Regional Citizens' Advisory Council have had substantial impact in lessening adverse effects both from operations and from potential catastrophes. Industry has acknowledged the helpfulness of PWS RCAC on numerous occasions. For example, PWS RCAC has exercised leadership (1) in having vapor controls installed on Berths 4 and 5; (2) in developing and installing ice detection radar in PWS; (3) in having a fleet of 5 state-of-the-art tugs to assist tankers in both normal operations and in emergency situations; (4) in helping develop realistic contingency plans for response to oil spill scenarios; and (5) in helping develop geographic response strategies for protection and cleanup to specific sensitive resources. Impact of citizen oversight groups should be included in the DEIS. In fact, impacts associated with citizens' oversight groups can be compared with the impact associated with the absence of such groups because the pipeline itself does not have a citizens' oversight group. 113-26

Side stepping the authorization of fines by the Bureau of Land Management (BLM) to the TAPS owners (Item 4) is inappropriate (page 2-6). The DEIS should justify how giving the BLM such authority would require another NEPA. If new rule-making regulations are required, then so be it. Without the authority to fine TAPS Owners, the BLM's oversight role is significantly diminished. 113-27

Why would setting up an Escrow Account to cover TAPS Removal and ROW Rehabilitation require a NEPA analysis as noted on page 2-6 (item 7)? And, if it does, is that adequate justification for not doing it? 113-28

The DEIS appears to have little discussion of improvements for contingency planning? Why aren't the impacts and lessons learned from the Exxon Valdez Oil spill (EVOS), Livengood, and other spills incorporated into the DEIS for contingency planning purposes? The EVOS had significant environmental impacts, that are well documented by numerous studies funded and published by the State/Federal EVOS Trustees Council. These studies are not referenced by the DEIS. Both the state and federal governments responded to the EVOS by revising and upgrading oil spill contingency planning requirements as a way to preclude or minimize future spill impacts. There are specific contingency planning upgrades that should have been addressed in the DEIS as a way of mitigating for or precluding environmental impacts of catastrophic future spills. The DEIS appears not to have considered revisions or upgrades in contingency planning and the impacts associated therewith. 113-29

Some contingency planning upgrades include requirements for Geographic Response Strategies (GRS) for the protection of sensitive areas. GRS are standard along the west coast of both Canada and the US and are being implemented along the east coast. The impact of improved skimming systems that are capable of responding in fast water is yet another planning scenario whose impact could have been assessed. Detailed spill scenarios are necessary to provide for the careful analysis of impacts and resource requirements in managing an incident.

Contingency planning for spills along the pipeline itself consists of about 220 equipment and containment sites whose purpose is the pre-positioning of equipment and berms to manage spills occurring near the site. The equipment and containment sites do not specifically identify sensitive resources along the pipeline nor would they provide the same level of protection to these sensitive resources as do the GRS sites in the Sound. The GRS sites in the Sound have been identified in advance and are much better matched with a workable cleanup strategy supported by equipment, personnel, and training specific to each individual site. GRSs along the various watersheds crossed by the pipeline will significantly lessen the potential environmental impact of catastrophic spills into the watersheds. The Copper River watershed could be seriously damaged by oil spills into any of the number locations where TAPS crosses its tributaries. 113-29 (Cont.)

2.3 Quality of raw data

The DEIS places considerable reliance on data provided by Alyeska and owners in citations of TAPS Owners 2001a (Draft Environmental Report provided by Owners) and in citations of personal communications. Considerable amounts of data are taken from cited literature. Data from recent measurements appear to be used less frequently. Very little validation of data provided by the owners can be found in the DEIS. One noteworthy aspect of TAPS Owners (2001a) is that it claims to be a draft. It seems unreasonable that the DEIS should make so much use of a draft report (i.e. a report for which the authors will not take responsibility) and then fail to include published works by experts. The TAPS Owners 2001a should not be used in the DEIS unless its authors take responsibility for its contents. 113-30

2.4 Potential impacts of spilled oil

As noted in the Specific Comments below, the DEIS does not adequately address the potential impacts of oil spills on fish. The evaluation of oil spill impacts is largely restricted to concerns regarding containment and clean up of whole product oil; the fate and effects of aqueous phase oil on fish are not adequately evaluated. Of additional concern, the DEIS appears to selectively cite Exxon sponsored studies on the effects of spilled oil on fish, and does not always provide a balanced accounting of Exxon Valdez oil spill (EVOS) impacts. The DEIS frequently refers to scientific controversy regarding impacts to fish when a 113-31

more accurate representation is that there are technical disagreements between government scientists and Exxon funded contractors. TAPS traverses the Copper River drainage (noted on page 3.19-31) which is the major salmon producer in Prince William Sound (PWS). It is critical that the DEIS present a more balanced and thorough analysis of potential oil spill impacts because of the ecological and economic importance of salmon produced in this and other areas that may be impacted by TAPS oil spills. 113-31 (Cont.)

Birds and marine and terrestrial mammals were significantly affected by EVOS, and yet there is no mention of this in Table 2-1 (Page 2-15). Much of the cumulative impact from the past 30 years of operations appears not to have been included in the DEIS. 113-32 113-33

Section 3.11.5 devotes three paragraphs to the Exxon Valdez oil, and cites one paper written by Paul Boehm (Boehm et al. 1998), who is an Exxon consultant. The DEIS states "by May 1989, most of the floating oil either had been removed by skimmers, had left the coastal area, had evaporated, had degraded, or stranded on shoreline or in sediments." In actual fact, less than 15 percent of the oil was recovered by skimmers, so writing that sentence the way the authors did, drastically overemphasizes the effectiveness of the cleanup and response effort. The most comprehensive mass balance for the Exxon Valdez oil spill was prepared by Wolfe et al. 1994. No mention of this paper, or any number of the other papers (which number in the hundreds) written on the Exxon Valdez oil spill, are cited in this section. Also no mention is made of any of the more recent studies completed by the NOAA Auke Bay Laboratories, which demonstrate that persistent and buried oil continues to impact localized areas within Prince William Sound. There is no mention of hydrocarbon measurements in the water column following the Exxon Valdez oil spill or the extensive shoreline contamination as documented by massive research programs summarized in two conference proceedings dedicated to the EVOS (Wells et al. 1995 and Rice et al. 1996). None of the more recent studies by various EVOS Trustee-sponsored researchers is cited, and none of the more recent Auke Bay studies that demonstrated longer-term impacts from concentrations much lower than the NOAA ERL (as low as 1 ppb for several key Alaskan species) were mentioned. The DEIS should provide a balanced presentation of EVOS impacts and oil persistence. 113-34

The DEIS also places considerable emphasis on subtidal sediment hydrocarbon burdens, when the majority of the impacts from most oil spills (including the EVOS) actually occur in the intertidal zone (Section 3.11.5). This focus on a single paper to cite that higher concentrations of sediment hydrocarbons were observed at Drier Bay (which were attributed to historic cannery operations and other anthropogenic sources along with natural background levels) versus the 113-35

hydrocarbon contamination at the Bay of Isles (which remains to this day as one of the more heavily oiled areas), presents an incomplete discussion of existing environmental impact. As described in this discussion the Exxon Valdez oil spill appears to be nothing more than a minor perturbation to Prince William Sound. 113-35 (Cont.)

The emphasis on subtidal sediments is misleading. It is a well-known and documented fact that very little of the Exxon Valdez oil reached the subtidal sediments in Prince William Sound. The impacts were primarily intertidal, and this is completely ignored in the DEIS. Also, nothing is said about the tens of thousands of birds, marine mammals, and intertidal organisms that were impacted by the spill. 113-36

Of additional concern, there is no discussion of the subsistence and economic impacts to the villages and ports around Prince William Sound (Tatitlek, Cordova, Valdez, etc.) from extensive fisheries closures. The DEIS does not adequately convey the socioeconomic impacts of EVOS and should be revised accordingly. 113-37

More recent literature has been overlooked. Studies funded by the oil industry seem to have been favored (e.g. TAPS owners 2001a (draft owners environmental report)). Contradictory studies funded by others appear to have been overlooked. For example, NOAA and Auke Bay Laboratory toxicity studies indicate that Alaska North Slope crude oil is much more toxic than originally thought and that the toxicity is amplified by sunlight. Likewise, recent research funded by PWS RCAC indicates that the dispersants now dedicated for use on oil spills in Prince William Sound are likely to be ineffective and are more toxic than originally thought.

PWS RCAC is pleased to note that research by Jeff Short and his colleagues on possible sources of hydrocarbons in PWS from other than Alaska North Slope crude oil has been cited in the DEIS (although the citation is missing from the references). There are other sources of hydrocarbons (and PAHs in particular) from coal, natural seeps at Katalla, source rock, and other geologic features; however, the discussion of the other sources of hydrocarbons is incomplete and misleading. For example, many of these PAH sources are trapped in solid substrates located in deep water, and as such, the PAHs are not bioavailable. Liquid oil and petroleum products also contain PAHs, but, their PAHs are more readily dissolved from fluid oil films and small, dispersed droplets into the aqueous phase, and as such they are more bioavailable. Also, because most crude oils and petroleum products tend to be near the surface or in the upper water column, they are more available to intertidal and subtidal species. In this regard, we believe that some of Mr. Short's other research regarding the lingering effects of the Exxon Valdez oil spill should be included when changes 113-38

to the DEIS are considered. If one were to examine the intertidal zone of the beaches oiled by the Exxon Valdez spill in Prince William Sound: (1) considerable quantities of hydrocarbons will be found; (2) these intertidal hydrocarbons will show high levels of bioavailability; and (3) the hydrocarbons will bear the unmistakable signature of Alaska North Slope crude oil. Recent literature documenting substantial research is available on this subject from Jeff Short and others, and a more detailed discussion, supported by recent literature citations, of the lingering effects of the Exxon Valdez oil spill is needed if there is to be any reasonable claim that the cumulative impact of the first 25 years of TAPS operations has been addressed in the DEIS.

The Exxon Valdez oil spill is implicated in long-term damage to sea otters and ducks as documented in Irons et al. (2000); Trust et al. (2000); Esler et al. (2000a), 2000b; Lance et al. (2001), and Bodkin et al. (2002). The long term effects of the Exxon Valdez oil spill on pink salmon and herring, from the government perspective are explored in Rice et al. (2001) and Carls et al. (2002a). Exxon Valdez oil is still present in PWS. Oil persistence in Prince William Sound is discussed in Carls et al. (2001b) and Short et al. (2002). "Why is oil bad for fish?" has been documented extensively in Carls et al. (2001) and Moles (2001). 113-38 (Cont.)

Oil industry sponsored studies and government sponsored studies of the Exxon Valdez Oil Spill have arrived at different and conflicting conclusions regarding the different effects and impacts to the environment. The DEIS in its analysis of the cumulative effects of TAPS has not addressed the fact that conflicting credible research exists on what reasonably should have been of interest in a study of cumulative environmental impact. The DEIS should not only report the controversy; the discussions of cumulative impact should try to resolve the controversy. The issue of why oil industry and government sponsored studies of the same oil spill arrived at such different conclusions is explored in Peterson et al. (2001), and these findings should also be included in any revisions to the DEIS.

2.5 Changes to TAPS operations and validity of DEIS impact prediction

The DEIS appears to be primarily concerned with design basis operations. Off-normal operations appear not to have been reasonably considered in assessing impacts. For example, the BWTF 90s Tanks (gravity separation of crude oil from ballast water) are having problems with waxy solids that prevent timely removal of the waxy solids and recovered crude oil from the process. The waxy buildup is a recurring problem in the 90s Tanks and along with other scheduled maintenance has limited operational capacity of the gravity separation process to less than 50% of its design. The impacts associated with operation of processes away from their design bases need to be assessed in the DEIS. 113-39

Alyeska's historical business model is to make operational changes and to defer maintenance based upon bottom line priorities. The increased risk associated with deferred maintenance, including that of catastrophic failure due to corrosion, needs to have its environmental impact considered. 113-40

Frequent personnel or operational and management reorganizations may result in the reassignment of personnel to positions of oversight with which they are not familiar. The DEIS should consider increased risk and potentially adverse environmental impact associated with large-scale reorganization driven personnel reassignments. For example, in the reorganization now being implemented, all of the asset team leads (personnel reporting to the VMT Manager) have new assignments and almost all of the asset leads have never had responsibility for nor detailed knowledge of the operations that they now supervise. 113-41

2.6 Interpretation of data to produce conclusions regarding environmental impact

The connections between raw data and impact conclusions are not clear in many instances. For example, the DEIS reports that the current fleet of 26 tankers (3 with double hulls) will reduce in size to 8 to 10 tankers by 2020. Currently there are 25 tankers in the fleet including 7 with double hulls. Operation of 8 to 10 tankers in 2020 is predicted to result in a substantial reduction in the annual probabilities of accidents and spills. Is risk really reduced if a minimal number of tankers is attempting to carry 1,000,000 bbl per day and the owners are resisting further investment in TAPS anticipating shutdown in 2034? 113-42

In the DEIS section for the "Affected Environment" (Section 3), reasonably detailed descriptions are provided for the anticipated range of DEIS components, including existing biological resources associated with the TAPS ROW. The descriptions of existing biological resources are almost exclusively directed at resources presently in place after almost 30 years of the TAPS operations. Very little discussion is provided for how these resources may have changed or been impacted over the approximately 30-year period of routine TAPS operations, except for very brief discussions relating to impacts from the Exxon Valdez oil spill and acknowledging compliance (but not necessarily no impacts) with (National Pollution Discharge Elimination System (NPDES)-permitted operations such as the ballast water treatment facility (BWTF) discharges at the Valdez Marine Terminal. While information relating to characteristics of biological resources in the absence of the past approximately 30 years of routine TAPS operations would likely be relevant to the no-action alternative (i.e., the alternative associated with cessation of pipeline operations and removal of its components), the DEIS acknowledges the following for the no-action alternative 113-43

(page 4.7-1 in Section 4.7.1.1): "No action has not received engineering and environmental study and its description remains somewhat speculative." As such, very little information is available in the DEIS for likely environmental impact to biological resources if the past approximately 30 years of routine TAPS operations had not occurred. 113-43 (Cont.)

2.7 Qualitative vs. Quantitative nature of impacts cited

Assigning probabilities for very unlikely catastrophic events is more qualitative than quantitative. The potential impact of such events is cited as minimal because a low, perhaps unrealistic, probability is driving the potential impact. For example, an Exxon Valdez type incident is predicted to occur no more than once every 1000 years, but we know that such a incident has occurred once in the first 25 years of TAPS operations. What justifies the use of a now much reduced probability for this kind of incident? Have the hidden risks all been identified, quantified, and ultimately reduced? 113-44

Total impact in Prince William Sound has been described qualitatively and in terms of 10-year old research that is arguably incomplete and controversial. A bottom line of no lasting impact is cited in the DEIS. More recent research indicates a continuing impact that was not cited in the DEIS. Recent field measurements at oiled beaches still show the presence of significant quantities of Exxon Valdez oil (Short et al. 2002). Additionally, recent research shows that Alaska North Slope crude oil is more toxic that originally believed and that the effects of this increased toxicity are amplified by sunlight. 113-45

2.8 Adequacy of Spill Scenarios for Analysis of Environmental Consequences

On page 4.4-3 (section 4.4.1.1 Pipeline and Valdez Marine Terminal Spill Scenarios and Locations) it is stated that data from small to moderate spills considered to be in the "anticipated to likely" category were examined from the 25 years of TAPS operations. Were data on large spills that actually occurred (but were statistically considered to be "unlikely to very unlikely") excluded from the analysis? If so, the DEIS should explicitly stated that although larger spills have occurred in the past, they were not included in the analysis of spill impacts that would occur from large but unlikely or very unlikely spills in future. 113-46

In table 4.4-2 (on page 4.4-7) the frequency range for "very unlikely" should read 10^{-6} to 10^{-3} (it is printed incorrectly). Without digging into the methodology used for spill frequency analysis (which is evidently covered in the appendices) it is hard to comment on the estimated frequencies used in the DEIS. As noted above, we already know that one low-probability high-impact event (the Exxon Valdez oil spill) has already occurred, along with the Eastern Lion oil spill at the terminal in 1994 and the ballast water treatment facility spill in 1997. How did 113-47 113-48

these known events factor into the calculations used in the DEIS? The DEIS should compare the frequency of observed spill events by size during the first 30 years of operation to the estimated frequency of events for the second 30 years of operation.

113-48 (Cont.)

With regard to the 1994 Eastern Lion oil spill at the terminal (Jones 1994; KLI 1994) and the 1997 ballast water treatment facility spill (Jones 1997; KLI 1997), why were neither of these spill events discussed in the DEIS? It would be appropriate for actual spill events, which occurred at the Valdez Marine Terminal, to be considered in the design and development of hypothetical spill scenarios for predicting potential impacts 30 years into the future.

With regard to spill scenario event number 11 (in Table 4.4-2 on page 4.4-8) it is unrealistic that a 2.1 million gallon spill to land outside the containment barriers would not reach the waters of Port Valdez. The slope of the land at the Valdez Marine Terminal is moderately steep, and it is hard to imagine that all the oil could be stopped from entering the Unnamed Valdez Marine Terminal Creek or otherwise flowing over land into the Port.

113-49

As a general note on both Tables 4.4-1 and 4.4-2, these tables would be easier for the lay reader to evaluate if the frequency was reported as once in X years (i.e., the reciprocal of the frequency) and the volume spilled was reported in gallons.

113-50

On page 4.4-9 a "guillotine" break of the pipeline is described as a short duration release. Could a guillotine break last from less than one hour to a period of days depending on how long it takes the affected pipe void volume to drain?

113-51

On page 4.4-9, risk is defined as the product of the annual frequency of a spill event and the severity of consequences. The development of very unlikely but highly catastrophic scenarios is then briefly discussed, but the reader is directed to yet another section (4.4.1.3) for additional discussion. This brings up a general concern about the DEIS. The reader is frequently directed to either preceding or following sections (sometimes contained in separate computer files) before a particular thought or line of inquiry can be completed. The DEIS would be more useful if organized to keep related ideas or topics together.

113-52

On page 4.4-10, scenario 5 is described as a crack in a cargo tank of a vessel loading Alaskan North Slope crude oil. It is improbable that the oil could be contained within the boom surrounding the tanker, as the volume released would depend on the amount of oil in the tanker relative to the position of the crack in the vessel.

113-53

On page 4.4-15 the frequency of a guillotine break in the pipeline from an airplane impact is estimated to have an occurrence of around once in 100 to 400 years (8.6×10^{-3}/year). Does this aircraft impact frequency account for terrorist activities such as those of September 11, 2001, or is the overlying assumption throughout the DEIS that all aircraft/pipeline or aircraft/terminal incidents were the result of an accident? 113-54

On page 4.4-16 spill incidence frequencies are reported as 1.7×10^{-4} or 1.2×10^{-2}, etc. The DEIS would be much more useful to the lay reader if spill frequencies were consistently but parenthetically also reported as once in 5882 years or once in 83 years, etc. 113-55

On page 4.4-20 parametric surface area analysis is defined to assume flat ground, with the area covered determined by the volume spilled and a specified oil thickness of 1, 2, or 3 inches. Objective analysis takes surface terrain (containment features, slope, etc.) into account. No evaporation or seeping into the ground is factored into the estimate of area covered. On page 4.4-21, it is stated that objective analysis is applied only to guillotine pipeline break spill scenarios. In these instances the volume spilled is not specified or tied to flow rates. Instead, the minimum volume to cover the area of interest was used in the spill scenarios. This approach (using the minimum volume to cover the specified area) would minimize the estimated amount of oil encountering a surface water body. This estimation approach is flawed because water may act as an infinite sink (where instead of pooling, the oil can readily spread on the water surface away from the point of contact) such that a much larger area would eventually be impacted (specifically, the banks of the water body in question). The DEIS should have considered such possibilities instead of simply using the minimum volume to cover the area of interest, without the possibility of subsequent entrainment into a flowing water body such as a stream or river. Putting it another way, the objective approach does not account for oil entering a creek, stream, or river and being further transported by water flow, thereby increasing the contaminated area. 113-56

In the footnote on page 4.4-21, the DEIS states that evaporation rates are predicted based on Fingas (1996). This approach tends to over estimate evaporation from thicker oil pools, because of diffusion control in the oil phase (Payne et al. 1984), which is not accounted for in the approach used by Fingas. As a result, the amount of oil remaining to spread, be contained, or picked up by mechanical means will be consistently underestimated in the DEIS. 113-57

In section 4.4.1.3.2 Catastrophic Valdez Marine Terminal Events (on page 4.4-22) the total volume of oil contained in 18 crude oil storage tanks at the Valdez Marine Terminal should be presented in gallons to give the lay reader an idea of 113-58

the huge volume contained at that facility. For example, there are 21 million gallons per tank (two times the volume of oil spilled in the EVOS) x 18 tanks = 378 million gallons. To put that into perspective that most Alaskans can relate to, that is equivalent to approximately 34 Exxon Valdez-sized spills stored in one location. 113-58 (Cont.)

On page 4.4-22, the DEIS states that catastrophic storage tank failure or rupture is extremely rare. Causes of actual tank failures include: foundation failure, weld failure, impact by rail truck, and flooding. Foundation failure was not considered likely, but it could occur with a major earthquake. A spill from such an event could easily enter Port Valdez waters, although the frequency for a storage tank failure event was listed in the DEIS as 1.8×10^{-6} (once in 555,000 years). How can such a frequency be justified when we already know that an initiator event with the potential to cause foundation failure (the 1964 earthquake) occurred within the last 50 years? By the estimates presented in the DEIS, such unlikely events could produce spill magnitudes ranging from approximately 50,000 barrels (2.1 million gallons) on land outside secondary containment, to a spill of more than 143,000 barrels (6 million gallons) into Port Valdez. The DEIS states that 2.1 million gallons of oil spilled at the terminal can be contained and won't reach Port Valdez. If only a small portion of a spill of this size were to reach the Unnamed Valdez Marine Terminal Creek, it would be almost impossible to contain. 113-59

On page 4.4-24 the DEIS acknowledges that the transport of oil downstream from a spill is a very complex process. While models exist to predict such behavior, they generally require large quantities of field data that were unavailable for preparation of the DEIS. As a result, a number of simplifying assumptions regarding slick sizes, geometries, and trajectories on flowing water were made. Specifically the oil was modeled as a rectangular slick, which moved at the current speed until it reached various collection points along the river or stream. Most of the analyses presented deal with estimated cleanup percentages, and there is very little consideration given to downstream impacts to fish and invertebrates from dissolved fractions that transit significant distances beyond the initial spill impact zone. 113-60

On page 4.4-26 (section 4.4.3.1 values Marine Terminal Fire Event (scenario 10) the DEIS considers the impact from a fire caused by an airplane crash into one of the tanks contained within the East Tank Farm. It is assumed that the contents of the second tank and the dike walls are not affected during the event. The DEIS should consider what happens if the second tank and dike walls are affected by the fire. On this and subsequent pages (4.4-29) the DEIS should state what data can be cited to ensure that the other tanks would not be damaged by the heat and also explode and burn. 113-61

On page 4.4-29, it is stated that a Fire Dynamics Simulator (FDS) model was used to obtain estimates of near-field soot and combustion product concentrations. In the text it is admitted that the model has not been applied to very large fires or compared to field measurements and that there were a number of memory and grid point constraints that affected the model results. Nevertheless, the data generated from model runs are presented in Table 4.4-6 with no additional caveats in either the title or footnotes to qualify the results. In addition the table would be much more useful if toxicity or concentrations of concern to human health were also presented. Without them, it's hard to interpret the consequences from the data as presented. 113-62 113-63

On page 4.4-32 there are a number of assumptions invoked which clearly limit the extent of the fire considered in the scenario, and many of these may need to be questioned. For example, the fire control assumes availability of high-level industrial fire brigade support from the Valdez Fire Department. The DEIS should consider what would happen if access to the VMT were to become limited because of the Dayville Road being blocked by winter weather and other causes. 113-64

On page 4.4-33 the DEIS states that the Valdez Marine Terminal currently has a draft firefighting strategy to keep adjacent tanks cool in the event of a dike fire. The Valdez Marine terminal has been in existence for over 25 years. Why does Alyeska only have a DRAFT firefighting strategy to keep adjacent tanks cool in the event of a tank or dike fire? Does the Draft designation indicate a lack of commitment to the strategy? What is the potential environmental impact? Also, do the firefighters at the Valdez Marine Terminal have the specialized training and equipment necessary to fight large dike fires? Are there sufficient resources (foam) available to handle such an event? 113-65

Tables 4.4-9 and 4.4-10 (on pages 4.4-35 and 4.4-36) present maximum modeled public exposures to soot and fire combustion products from two pipeline fire and spill scenarios. The DEIS should provide some reference to acceptable levels. Are there chronic or IDLH (immediately dangerous to life and health) values published for these products? This information should be presented in the tables. 113-66

On page 4.4-38 (section 4.4.4.1.2 Impacts for Selected Spill Scenarios) the DEIS describes a spill scenario for a "very unlikely" guillotine break, where over 2,200,000 gallons of crude oil is released in a short time. Based on a parametric calculation, the estimated size of potentially contaminated soil would be 84 acres, with an assumed spill pool thickness of one inch. The DEIS goes on to state that the pipeline is adjacent to Goldstream Creek (the location selected for the 113-67

scenario), and as a result, the oil would drain into the creek resulting in a land area of only about 0.2 acres being contaminated (as calculated using the objective analysis method). "The majority of the contaminated land would be confined along the creek and downstream." Given this scenario, the DEIS should then address the distance that the oil might flow downstream and the additional area of ecosystem oiling and impacts that would result from extensive contamination of the streambed and banks. Likewise, after the bulk of the oil had been retained in stream banks, sediments, and natural collection points, additional downstream impacts to fish, infauna, epifauna, and streambed vegetation would occur from dissolved constituents. Dissolved BTEX and PAH components could travel for tens if not hundreds of miles before nontoxic concentrations are

113-67 (Cont.)

reached from a combination of evaporation and dilution from fresh-water tributaries feeding into the stream. None of these considerations are mentioned in the DEIS until page 4.4-40. 113-67 (Cont.)

Even when the potential impacts are discussed (page 4.4-40; section 4.4.4.3.2 Impacts of Spill Scenarios), a number of unrealistic and simplifying assumptions are made. The oil is assumed to move downstream with distinct leading and trailing edges (plug flow) and a slick length that remains constant in time. From numerous real-world events from spills along rivers and streams, it is known that slick length does not remain constant in time, but actually increases due to shoreline stranding, streambed and bank contamination, and subsequent bleed off and leaching. The DEIS analysis does not included any of these behaviors and most of the weathering processes known to affect oil spreading and drift are ignored. Also, none of the analyses presented in the text or the accompanying tables include realistic response times or remediation effectiveness. Instead, exceedingly fast response times and high percentages of oil available for recovery are presented for each scenario, with no discussion of the limitations or difficulties associated with actual cleanup effectiveness. In several instances under low flow conditions, the DEIS estimates 100 percent of the released oil would be subject to capture (for example see Tables 4.4-15 through 4.4-18), which is unlikely to occur. The tables refer to "percentage of spill subject to recovery at containment site (CS)." They don't actually state that the cited percentage is the amount of oil that will be recovered. Nevertheless, the DEIS implies much higher recoveries than can ever be realistically achieved, and so, it is misleading. Finally dissolution and concomitant toxicity to fish, and all other life forms within the spill zone and further downstream are completely ignored. 113-68

Table 4.4-19 on page 4.4-50 presents a summary of spill volumes, rates and drainage times for different pipeline break scenarios, but the drainage times are very short. They are probably not realistic and do not allow for slower oil drainage as its viscosity increases due to cooling upon exposure to colder air after the pipeline break. 113-69

On page 4.4-53 there is an acknowledgement that impacts to rivers and creeks under high flow conditions for the postulated guillotine break scenarios would be major. Subsequent cleanup could take considerable time and effort because it was unlikely that a significant portion of the spilled oil could be captured. These high flow scenario impacts are not quantified in the DEIS. 113-70

In section 4.4.5.1 Spill Locations (page 4.4-60) nine scenarios for oil spills that could reach the waters of Port Valdez are defined. In four of the scenarios contaminants are released directly into the water, and in five scenarios the initial release of crude oil is on land, with the oil then flowing over land into the waters 113-71

of Port Valdez. For the spills on land, it is assumed that the oil flows from the discharge point to the Unnamed Valdez Marine Terminal Creek, which eventually flows into Port Valdez near Berths 3, 4, and 5. The volumes for most of the hypothetical spills that are projected to reach water are far less than the 2 million gallon figure that is claimed to be successfully retained or prevented from reaching the waters in the port elsewhere in the DEIS. The DEIS should elaborate further on this apparent discrepancy. Specifically, how in Table 4.4-2 can a 2 million gallon crude oil spill on land outside of dike containment be prevented from reaching port waters (event No. 11), while much smaller volumes do get into the marine environment? Also, why are there only eight spills reaching marine waters identified in Table 4.4-2, while the text (on page 4.4-60) referring to the table discusses nine scenarios? Finally, how do the scenarios compare to actual spill events that have occurred at the terminal (e.g., the 1994 Eastern Lion oil spill and the 1997 BWTF spill) over the last 25 years? 113-71 (Cont.)

On page 4.4-62 (in section 4.4.4.5.3 Properties of North Slope Crude Oil), the inset states that 15-20 percent will evaporate within 24 hours of a spill. This loss by evaporation is greater than any measured during controlled oil weathering experiments with Prudhoe Bay crude oil under Alaskan conditions (Payne et al. 1984) or predicted by oil weathering computer models developed for NOAA and validated after the Exxon Valdez oil spill (Payne et al. 1991a). The DEIS should also address the fact that evaporation from thicker oil pools will be significantly retarded because of diffusion-controlled processes within the oil phase (Payne et al. 1984). 113-72

On page 4.4-62 the description of oil weathering behavior is very good. The DEIS should be edited to include a similar presentation for the oil spill scenarios into rivers and creeks. 113-73

Section 4.4.4.5.4 (on pp 4.4-63 through 4.4-66) should be revised to include the effects of dissolution of BTEX constituents and lower molecular weight PAH (naphthalenes, phenanthrenes, anthracenes, dibenzothiophenes, etc.), which do have finite solubilities in seawater. These constituents can reach lethal concentrations in exposed waters, particularly during the initial stages of a spill (Payne et al. 1984, 1991a, French-McCay 2002; Payne and Driskell 1999, 2001; Barron et al. 2002, Duesterloh et al. in press). 113-74

On page 4.4-63 under the section on "likely spills" scenario five involves the introduction of 500 barrels (21,000 gallons) from a tanker during loading operations. Can 21,000 gallons from a leak really be completely contained within a boom placed around a tanker? During the Eastern Lion spill event, oil was observed being entrained underneath the boom surrounding the vessel by tidal currents. Why wouldn't that be a problem with this scenario as well? Also, the 113-75

DEIS states that Alaska North Slope crude oil does not dissolve during the first 24 hours. That statement is inaccurate. It is during this first 24 hour period that the maximum amount of dissolution from BTEX and lower molecular weight PAH (naphthalenes, phenanthrenes, anthracenes and their alkylated homologues) occurs (Payne et al. 1984). Although most of the BTEX components are lost by subsequent evaporation from the water column, the lower molecular weight PAH are more persistent, and they will continue to dissolve into the water from oil on the water surface or from oil stranded on shorelines for months, as long as there is direct oil/water contact (Payne et al. 1984, 1991a,b,c). This section of the DEIS should be revised to reflect these well-known dissolution processes. 113-76

On page 4.4-63 under "unlikely spills" an 80 barrel (3600 gallon) spill during tanker loading operations is described. The DEIS states that the spill would be contained by the protective boom placed around the vessel; however, observation of oil-spill boom placed around the tankers at the berths at the Valdez Marine Terminal has shown that sections of the boom can be pressed tight against the hull of the vessel depending on wind and current conditions. Under such a configuration, it is unlikely that all of the oil would be retained, particularly if it were spilled from a loading arm or the deck of the tanker during loading operations. This scenario also minimizes the impact of dissolved constituents which can reach lethal concentrations in the immediate vicinity of the spill. Therefore, the statements of minimum impact from this scenario and the others discussed are not completely accurate. For example, oil from the 1994 Eastern Lion oil spill, which only lost an estimated 200 barrels (8,400 gallons), was detected for almost 12 months in mussels collected at the terminal and 6 km across the port at Gold Creek as part of the Prince William Sound RCAC LTEMP analyses (KLI 1994; Payne et al. 1998, 2001, 2002). The DEIS should be rewritten to more accurately reflect known impacts that occur even after "minor" oil spills in near shore marine environments. 113-77

On page 4.4-64 under the discussion of impacts from "very unlikely" spills, it is assumed that the oil would not be contained for up to two hours after its initial release into the waters of Port Valdez. The DEIS then incorrectly assumes that after that time all the oil can be boomed to prevent further spreading and shoreline impacts. From real-world oil spill experience, it is known that large spills cannot be easily contained as stated in the DEIS. The DEIS assumes optimal weather conditions for the response operations and most oil spills occur under adverse conditions. 113-78

On page 4.4-65 scenario number 11 claims that only two miles of shoreline would be significantly impacted during the two hours before the response. In making this prediction, the model used in the DEIS assumes a constant wind out of one 113-79

direction (most favorable conditions), when in fact the winds in Port Valdez are more variable. The possibility of containing a spill of that size in two hours is so low that very little credence can be placed on the predicted results. It is absolutely impossible to believe that a 6 million gallon oil spill could be completely contained after having two hours to spread and drift under the influence of wind and currents under real world conditions. For example, during the Eastern Lion spill at the VMT in 1994, the response was mounted in under two hours, and yet, the oil could not be contained. Within one and one-half to two days, oil and sheens were observed from that spill as far away as the Solomon Gulch hatchery and Duck Flats to the east and near the beach south of the Valdez Small Boat Harbor to the northeast. Eventually, oil was also found as far west as Andersen Bay at the west end of Port Valdez and in the Mineral Creek area on the north side west of the city of Valdez (Jones 1994). Even if all the oil in the hypothetical DEIS scenario were blown ashore, we know from experience after the Exxon Valdez oil spill, that subsequent tides and waves will remove and redistribute significant quantities of oil to other locations. Booms placed along the contaminated shorelines to prevent such continued transport processes were not effective in 1989, and there have not been significant improvements in boom technology sufficient to deal with the wind, wave, and current conditions in Port Valdez. As a result, it is impossible to believe that the impacts from this hypothetical spill scenario would be "small and localized" as stated in the DEIS. This scenario discusses a spill approximately 1/5 the size of the Exxon Valdez oil spill, which eventually contaminated over 800 miles of coastline in Prince William Sound and the northern Gulf of Alaska. As noted above, residues from the Eastern Lion oil spill were chemically detected across the port at Gold Creek for many months, and that was from a significantly smaller oil release. While the DEIS admits that oil on the shoreline could continue to impact the waters of the Port in the immediate area, it then states that because of dilution and the existing hydrocarbon background concentrations, these impacts would be minimal. That statement is not true. Although it is a fact that the PWS RCAC LTEMP mussel and sediment samples have shown BWTF-sourced hydrocarbon contamination in the port (Payne et al. 2001, 2002), the levels are still quite low, so leaching of water-soluble constituents and particulate/oil-phase hydrocarbons from the shorelines into Port Valdez in the weeks and months after a spill such as that described in scenario 11 would not be "minimal." Finally, the water exchange rates cited in the DEIS for the Port are being questioned as being too high (Payne et al. 2002). The DEIS spill scenarios and impact analyses for spills originating at the VMT should be reconsidered and rewritten to reflect what is actually known about real-world oil spill containment, the inefficiencies of on-water oil recovery, oil spill cleanup, oil weathering behavior (including dissolution), and the intertidal and water column impacts documented after 13 years of studying the aftermath of the Exxon Valdez oil spill.

113-79 (Cont.)

Based on this review of the hypothetical spill scenarios presented in the DEIS, the following general comment seems appropriate: All of the impacts discussed in the DEIS are based on specific and very inflexible scenarios prescribed in such a way that there is a very limited geographical extent of oil contamination in each case. The assumptions of minimal oil spreading, transport, and substrate contamination are based on unrealistic response times, unproven oil containment and cleanup efficiencies, and generally favorable weather conditions. When there is doubt as to whether the spilled oil could be contained as depicted in the scenarios, then little credence can be placed on the predicted impacts. As noted in considerable detail throughout this section, there are so many problems with the assumptions and restrictions imposed on the scenarios presented, that the very foundation of the DEIS is called into question. 113-80

2.9 Equivalence of regulatory compliance and lack of environmental impact

Compliance with environmental regulations is cited as evidence of minimal impact. Environmental impact and regulatory compliance are not equivalent. Impact assessment needs additional metrics based on up-to-date science and technology. Special vigilance is needed when industry has assisted in developing (exemptions to) the regulations. For example, Alyeska's NPDES Permit for the Ballast Water Treatment Facility has upper discharge limits that can be met without much challenge. Alyeska's Title V air quality permit application has been pending without action at the Alaska Department of Environmental Conservation for 5 years. In the interim, Alyeska has been operating the Valdez Marine Terminal under a more liberal Prevention of Significant Deterioration permit. At the suggestion of Alyeska and industry, the National Emission Standard currently being proposed by EPA excludes emissions from Alaska North Slope crude oil and from the Ballast Water Treatment Facility. A source emitting 25 tons or more per year of hazardous air pollutants (HAPs) is defined by EPA to be a major source. Yet, the proposed rule exempts a source, the VMT, exceeding the threshold by a factor of 5-10 (see discussion below in Section 3.5). The DEIS contains data indicating that hazardous air pollutants exceed the major source threshold by a factor of approximately 5. 113-81

Section 3.11.1 (under Section 3.11 -- Anthropogenic Influences on Physical Marine Environment) considers discharges from the Ballast Water Treatment Facility (BWTF) at the Valdez Marine Terminal. However, the primary thrust of the entire section is the statement that all discharges are in compliance with the applicable NPDES permit. Most of the discussion centers on biochemical oxygen demand and BTEX measurements, which have significantly improved after the installation of the biological treatment stage to BWTF in 1989. Average annual 113-82

discharges of ballast water treatment effluent are cited at 15 million gallons per day. The mixing zone is described and defined by acute and chronic effects zones. Monitoring schedules as required by the NPDES permits are outlined, and in the next section (3.11.1.2 Mitigation) it is again stated that the Valdez Marine Terminal is in compliance with all applicable NPDES permits. In addition, Alyeska is touted as using the best management practices available to minimize the volume of wastewater generated. Brief mention is even made of the technical advisory group (including ADEC [Alaska Department of Environmental Conservation], EPA, Alyeska, and PWS RCAC) to monitor and initiate changes to plant operations. There is, no mention of recent PWS RCAC studies on BWTF impacts to the port (Payne et al. 2001, Salazar et al. 2002, and Payne et al. 2002). Those studies have found, that notwithstanding the fact that the measured discharge levels are well below NPDES permit requirements, the volume of treated ballast wastewater is so huge that between 0.8 and 1.6 barrels per day of ANS crude oil are discharged as finely dispersed oil droplets into Port Valdez. This should be explicitly stated in the DEIS and possible mitigation approaches considered.

113-82 (Cont.)

Section 3.11.2 (Trace Elements) describes the measurements of eight elements (e.g., aluminum, arsenic, chromium, cadmium, copper, mercury, nickel, and selenium) that were surveyed between 1976 and 1978. Concentrations were found to be typically in the normal to low range for clean systems (Gosnik the 1979). Regulatory requirements for wastewater discharges from the Valdez Marine Terminal do not include effluent limitations or water quality monitoring for these trace elements. The environmental impact of operations that are in compliance with environmental regulations needs to be assessed where, as there is here, evidence indicates that adverse impact is occurring.

113-83

2.10 Transparency of TAPS operational processes

Citizens have great difficulty in looking into TAPS operational and maintenance processes because Alyeska claims that such information is proprietary to its business activities. JPO has related to PWS RCAC its own difficulties in getting the information it needs to assess compliance with its regulations and the laws it is to administer. It is unclear how the environmental impact of a system as complex as TAPS can be properly assessed if complete information regarding operations and maintenance is withheld from those making the assessment. For example, it is acknowledged that the Reliability Centered Maintenance (RCM) paradigm is appropriate to TAPS; however, (1) we do not know if it has been applied in a systematic manner to all processes and subsystems; and (2) we do not know the status of action plans to implement the specific maintenance strategies identified for the systems to which the RCM methodology has been applied. Information that allows quantification of the present state of TAPS is needed to verify that the assumptions of impact cited in the DEIS remain valid.

113-84

It should be a condition of renewal, that this information be made available to regulators and citizens alike. The systems audit being proposed by Alaska Forum for Environmental Responsibility or complete implementation of a Reliability Centered Maintenance (RCM) II program for TAPS would be appropriate. 113-84 (Cont.)

2.11 Assumptions

The DEIS recommends a proposed action of renewal of the Federal Grant for 30 years for the Trans-Alaska Pipeline System (TAPS). This recommendation is based on the assumption that impacts would be similar for both a 30 year period and a shorter period of renewal. The analysis of potential impacts is largely predicated on an assumed significant decrease in oil throughput (e.g., Figure 4.3-2); i.e., risks of environmental impacts will remain constant or decrease because less oil will be transported. This assumption ignores the potential for additional oil production in the North Slope (e.g., further development of existing fields, or the opening and development of the Arctic National Wildlife Refuge (ANWR) and indicates that a fundamental assumption in the DEIS is flawed. It seems likely that impacts would increase with additional oil throughput, but this is not considered anywhere in the DEIS. 113-85

Page 4.3-18 states that complete use of double-hulled tankers in PWS is expected by the year 2015. This projection may not be accurate because the shippers may continue to lease single-hulled tankers. It is unclear how much of the assumptions and estimated impacts of the DEIS are based on a complete conversion to double-hulled tankers that may not occur. Additionally, the DEIS appears not consider that use of double hull tankers reduces but does not eliminate the probability of catastrophic oil spills. 113-86

Anticipated impacts associated with hypothetical spill scenarios for the Valdez Marine Terminal and Port Valdez are summarized in Section 4.4.4.5.4. However, the impacts in all instances (including "very unlikely" spills with large volumes up to 143,450 barrels) are developed for scenarios under assumptions of operationally favorable conditions (e.g., a spill volume of 143,450 barrels that would be contained within a 2 hour period under "nonextreme weather conditions"). For perspective, it would be helpful if hypothetical impact scenarios were also developed for less-than-optimal conditions (e.g., spill response/containment for response times greater than 2 hours for a spill of large magnitude under less-than-optimal weather conditions or containment scenarios). 113-87

Section 4.3.8.1 and Table 4.5.2 make a simplistic extrapolation that impacts to the marine environment will not differ or will be less due to reduced throughput. There are multiple scenarios, none predictable, when you consider the current 113-88

status of the marine environment, i.e., the TAPS operation does not occur in isolation. Other stressors ranging from global warming, melting glaciers, assemblage shifts, increased tourism, and changing fishery policies may exert a combined nonlinear effect that tips the system in one direction or another. In discussing the BWTF, Section 4.3.13.2.1 counters the "decreasing throughput equals decreasing impact" argument. Specifically, it states, "Efficiency of the biological processing requires a nearly constant supply of oily, relatively warm input water. Disruptions to the flow occur when severe winter storms temporarily shut down tanker loading operations. Such interruptions may increase in the future as oil throughput decreases or ballast water volume is reduced for other reasons (JPO 2000b)." The DEIS assumption of decreasing future impacts from assumed decreased throughput is not adequately supported, and the DEIS should be revised to address the potential for future increasing impacts. 113-88 (Cont.) 113-89

Page 4.4-21 (footnote 2) notes that evaporation of a spill based on an assumed air temperature of 15 degrees C. The basis for this assumption is not provided and may overestimate the rate of evaporation, particularly during winter months. The DEIS should include alternative scenarios that are more appropriate to Alaskan conditions. 113-90

Section 4.4.1.3.2 discusses catastrophic events but does not discuss the potential for landslide/avalanche/tsunami impacts from a large earthquake on the tank farm or other parts of the Alyeska Marine Terminal facility. 113-91

Section 4.7.6.2 states that the residual oiling of shorelines will be indistinguishable from background. This statement is not adequately supported, as residual oil in the subsurface of beaches is detectable over 12 years after EVOS. The DEIS should be revised to use impact assumptions that more accurately reflect the available information on EVOS impacts (see PWS RCAC Comment Section 3). 113-92

3 Specific concerns

3.1 DEIS Executive Summary

Page ES-2 implies that hazardous air pollutants (HAPs) are no longer a major concern at the Valdez Marine Terminal (VMT) because vapor from tankers and crude oil storage tanks is piped to the vapor recovery and control systems. This statement does not include all available information and is misleading. Significant quantities of benzene, toluene, and other alkyl-substituted benzenes are released from the dissolved air flotation (DAF) tank of the ballast water 113-93

treatment facility (BWTF). Payne et al. (2002) estimated that BTEX emissions might be as high as 580 pounds per day at an average 12 MGD flow rate of treated ballast water. The DEIS should be revised accordingly. 113-93 (Cont.)

The statement on page ES-3 (section 6.1.1.1) that "impacts to the marine environment are expected to be the same as those that occurred historically" seems to imply that another Exxon Valdez type oil spill can be anticipated. PWS RCAC's mission is "Citizens promoting environmentally safe operation of the Alyeska Terminal and associated tankers." Another Exxon Valdez type oil spill cannot be tolerated. Cumulative impacts to the marine environment should include the cumulative effects of the *Exxon Valdez* oil spill (EVOS). 113-94 113-95

On page ES-4 the risks to human health from inhalation of airborne emissions are significantly understated, and the potential for human exposure to PAH by ingestion of fish and shellfish ignores the potential transport and effects of the BWTF diffuser discharges to Port Valdez as identified by Payne et al. (2001, 2002). Also, air quality concerns in Table 2-1 completely ignore benzene and other VOC emissions in Port Valdez due to the Dissolved Air Floatation (DAF) tanks and biological treatment system associated with the BWTF at the Alyeska Marine Terminal. Payne et al. (2002) estimated that approximately 580 pounds per day (or a 105 tons per year) of BTEX compounds are released to the atmosphere in Port Valdez assuming an average 12 MGD flow of treated ballast water. The DEIS should explicitly consider the impacts of these emissions. 113-96

On page ES-4 earthquake-triggered liquefaction and landslides are briefly mentioned, and it is stated that they are expected to increase with the current warming trend in Alaska. In the next sentence the authors of the DEIS contradict themselves and say that these events are very unlikely. Likewise the authors state that melting of permafrost along the ROW could change the number and size of thaw bulbs, but then they add that the number and size of thaw bulbs is expected to remain within the historical range. These contradictions and ambiguities are not in keeping with the NEPA mandate to ensure that environmental impact statements are easily understood by the lay public and other stakeholders. The Executive Summary of the DEIS should clearly state which assumptions were used, and the level of uncertainty associated with those assumptions. 113-97

The most significant impacts identified in the DEIS (ES.6.1.1.3) appear to be financial due to lost revenues from federal income tax and royalties and revenues paid to the state of Alaska. The statement that "no additional environmental justice concerns are anticipated" needs to be expanded and explained in the Executive Summary. 113-98

The effects of residual oil on salmon reproduction (Heintz et al. 1995, 1999; Marty et al. 1997) are not mentioned in the Executive Summary (ES .6.1.2; page ES-5), The DEIS should be revised to include a note that residual oil from shoreline oiling can impact salmon development and reproductive success. 113-99

The inhalation risks for cleanup workers at an oil spill are not mentioned in the Executive Summary (ES .6.1.2; page ES-5). The DEIS should include a discussion of potential human health risks to workers cleaning up spilled oil. 113-100

The statement on page ES-5 that "even if the food was not noticeably contaminated, consumption of the fish, shellfish, marine mammals would not likely cause any adverse human health effects because there would be only a small amount of oil in food" needs to be substantiated. This section does not reference any of the seafood contamination studies completed by NOAA (Varanasi et al. 1993; Field et al. 1999) following the *Exxon Valdez* oil spill. When evaluating the economic impacts of oil spill the DEIS should consider the loss of revenues to the fishing community caused by fisheries closures to prevent oil-contaminated or tainted fish from reaching the world's markets. 113-101 113-102

Section ES 6.2 and 6.3 attempt to persuade public opinion by implying adverse impacts on domestic oil production, national energy security, the balance of trade, overall economic activity, job losses to Alaskan citizens, and reductions in state services. The gross state product was predicted to decline by forty percent if the pipeline is shut down. 113-103

Under Mitigation Measures (page ES-7) the earthquake protection designed for the aboveground pipeline is discussed, but nothing is mentioned about design considerations or other mitigating factors for underground or buried pipelines. Earthquake impacts to the Valdez Marine Terminal are not considered. 113-104

The Executive Summary of the DEIS does not adequately address impacts with past actions associated with the TAPS. For example, the DEIS implicitly assumes that TAPS has not had long-term impacts on the Alaskan environment, but there is quantitative evaluation of pre-and post TAPS impacts. Also, the *Exxon Valdez* oil spill only receives minimal consideration, and the citations that are most often quoted are those of Boehm et al. (1998) and other Exxon consultants. 113-105

3.2 DEIS Alternatives

Page 2-6. Side stepping the authorization of fines by the BLM to the TAPS owners (Item 4) is not appropriate. The DEIS should justify how giving the BLM such authority would require another NEPA. Whether new rule-making 113-106

regulations are required, the environmental impact of impediments to regulators needs consideration. Without the authority to fine TAPS Owners, the BLM's ability to regulate is significantly diminished. 113-106 (Cont.)

Page 2-6 (item 7) Why would setting up an Escrow Account to cover TAPS Removal and ROW Rehabilitation require a NEPA analysis? And if it does, is that adequate justification for not doing it? 113-107

All estimates throughout the DEIS assume declining oil transportation (p. 2-16). What happens if ANWR comes on line or other fields are developed at greater production levels than currently projected? 113-108

An oblique reference is made to possible but very slight disruption to the movement of terrestrial mammals on page 2-17. That is the only place that this issue appears to refer to the effects of TAPS activities on mammal migration. Is it covered somewhere else? What have been the effects over the last 30 years of TAPS operation? 113-109

The DEIS appears to be trying to "have it both ways" by suggesting that the TAPS might be an historically significant structural complex eligible for listing on the National Register of Historic Places (p. 2-18). If that were the case, then removing it would violate the National Historic Preservation Act. The environmental impact of leaving it in place then needs consideration. 113-110

Loss of state revenues would lead to closure of state recreation areas, sites, and parks (p. 2-19). This assumes that use of these recreation areas requires some sort of supervision for users, an assumption that is not necessarily valid. 113-111

3.3 Valdez Marine Terminal Operations

Overall the description of the infrastructure for the Alyeska Marine Terminal in Port Valdez (pp 3.1-18 to 3.1-20) is extremely cursory considering the importance of this facility for tanker loading operations and the safety and security of Port Valdez. Additional descriptions of the ballast water treatment facility and NPDES requirements would be useful for independent evaluation of the DEIS (see for example, Payne et al. 2002). 113-112

Section 3.10 on Marine Water Chemistry deals primarily with pH, alkalinity, carbon dioxide, dissolved oxygen, and nutrient levels in Port Valdez. Most of the studies cited were completed in the mid-1970s and 1980 (Hood et al. 1973; Colonell 1980) The study of both current literature and historical literature is needed to assess impacts over time. Current literature is needed to describe the present state of the water in Port Valdez and Prince William Sound. 113-113

3.4 Normal Operations and Off Normal Operations

A considerable portion of the DEIS assumes that TAPS operates normally in accord with its design basis assumptions. The operational difficulties now occurring in the gravity separation processes at the Ballast Water Treatment Facility indicate that this facility has not been operated in full accord with its design for the previous 2 years. Maintenance of fire protection assets has been deferred to the extent that questions have been raised as to whether some of these assets will work as expected.

Off-normal operations needs consideration in the DEIS.
For example, during July 2002 the staff of PWS RCAC became aware of an ongoing problem in the operation of the Ballast Water Treatment Facility. The first stage of the treatment process is designed such that oil floats to the top of the water in the gravity separation tanks and is skimmed to the recovered crude tanks. In recent years, large accumulations of paraffin-like solids have interfered with operation of the skimmers and have resulted in considerably greater accumulation of oil being retained in the 90s tanks than that allowed by the design. Increased risks of fire and pollutant discharge are being evaluated by Alyeska. JPO has recently requested an action plan for correcting the problem. 113-114

Additionally, Alyeska has taken one of the three 90s Tanks out of service to inspect for, repair, and prevent corrosion damage. Consequently, the gravity separation process is operating at less than 50% of design. The risk of environmental impact from fire is greatly increased because the fire protection assets in place for the task have not been designed for the greatly increased fuel loading now present in the tanks. Because more oil is likely entering the secondary stage of processing, the risk of increased pollutant discharge may also have increased. However, measurements regarding this risk appear not to have been taken. How does the DEIS address issues of off-normal operation?

The 1994 Eastern Lion oil spill (Jones 1994; KLI 1994) and 1997 BWTF overflow (Jones 1997; KLI 1997) were significant environmental events within Port Valdez. These were not mentioned in assessing cumulative impacts. The DEIS should address the impact of these and other significant spills as part of its consideration of off-normal operations. 113-115

3.5 Air quality

No mention is made of the BTEX emissions from the dissolved air flotation tank at the Alyeska Marine Terminal (Section 3.13). It is stated that the Title V permitting, which was established by the Clean Air Act Amendments of 1990, imposes some limitations of the Prevention of Significant Deterioration (PSD) regulations, however, these are not clearly specified in the DEIS. The dissolved air flotation tanks and biological treatment tanks are listed in Table 3.13-2 113-116

(stationary emission sources installed at Valdez Marine Terminal), however, the rating capacity or product throughput for each unit is listed and not the actual atmospheric emissions. The DEIS should be revised accordingly. 113-116 (Cont.)

Section 3.13.1.1 Criteria Pollutants indicates that the Valdez Marine Terminal is one of the largest emission sources for criteria pollutants (nitrogen oxides, VOCs, particulate matter with diameters of 10 micrometer or less (PM_{10}), sulfur dioxide, and carbon monoxide). The Valdez Marine Terminal contributes 90 percent or more of each criteria pollutant and VOCs to the total emissions in the Valdez area. This is really reflected in Table 3.13-4 on page 3.13-7. The Valdez Marine Terminal also has the largest vehicle-related emissions, with annual emission rates of 0.4, 4.8, 25.9, 0.7, and 2.4 tons per year of sulfur oxides, nitrous oxides, carbon monoxide, PM_{10}, and VOCs, respectively. It should be noted, however, that except for carbon monoxide, these emissions are small compared to the stationary sources at the Terminal. 113-117

Section 3.13.1.2 Hazardous Air Pollutants states that in addition to the criteria pollutants, TAPS facilities also emit hazardous air pollutants (HAPs), ozone depleting substances, and greenhouse gases. Table 3.13-6 lists the potential annual emission rates of various HAPs from TAPS facilities. The largest HAPs emitter among all the TAPS facilities is the Valdez Marine Terminal. In the early periods of operation, over 42.8 tons per year of benzene was emitted from the facility with another 68 to 70 tons per year of toluene, ethylbenzene, xylene, and hexane. The cited total of 105 tons per year of BTEX in Table 3.13-6 is remarkably close to the same estimate derived by Payne et al. 2002 coming from the dissolved flotation tanks alone. Because the DEIS estimates are supposed to include other sources as well, it is highly probable that the total BTEX emissions cited in Table 3.13-6 are actually low. Ascertaining the real numbers is required to cite the real impact. 113-118

Table 3.13-8 lists ambient air quality standards, Alaskan air quality standards, and maximum allowable increments for prevention of significant deterioration for the criteria pollutants, but no limits on the HAPs are presented. Monitoring data for the Valdez Marine Terminal are presented in Table 3.13-9, and the data are compared to background concentrations in the North Slope area and Beluga Point in Cook Inlet. The DEIS states that all monitored ambient concentration data are in compliance with applicable air quality standards. This is a good example of regulatory compliance (there is no regulation) and adverse impact. However, these data are for the criteria pollutants (not a serious issue) and are not for the HAPs (which exceed EPA's major source threshold by at least a factor of 5. The DEIS should address the environmental impact of the HAPs and reconcile impact with EPA's definition of major source. 113-119

Section 3.13.2.2 contains several paragraphs on Hazardous Air Pollutants. It cites an Alyeska-sponsored monitoring program from November 1990 through October 1991 at four stations in the Valdez area (Goldstein et al. 1992). At the time of that study the crude oil throughput was 1.8 million barrels per day. The highest concentrations of BTEX were at the east gate station near the eastern boundary of the Valdez Marine Terminal. This is not surprising since the Valdez Marine Terminal is the major emission source of these HAPs. Table 3.13-11 presents the ambient concentrations of the air pollutants measured in that program. Maximum benzene concentrations at the east gate were 1248 ug/cubic meter; with concentrations falling to 360 at old Valdez, 136 at the high school, and increasing again to 319 at the spit. It is stated in the text that these measurements were completed before the installation of the Tanker Vapor Recovery System at the Valdez Marine Terminal, and therefore, the concentrations anticipated today should be much less. The estimates for total BTEX emissions from all sources in the DEIS are around 105 tons per year, and this is the same value calculated for emissions from the Dissolved Air Flotation Tanks alone by Payne et al. (2002). Thus, it is unlikely that the BTEX concentrations around the terminal and in the city of Valdez have decreased as significantly as claimed in the DEIS. Given the carcinogenic nature of benzene, another monitoring program appears warranted at this time, and data from more than four stations should be collected. The reliability of the DEIS conclusions regarding air quality are questionable because little new data have been obtained. 113-120

The health effects of these emissions are not assessed in this section. On page 3.13-18 it is stated that neither the EPA nor the state of Alaska has established standards for HAPs. The EPA guideline levels for these HAPs under the Clean Air Act and potential health effects are discussed elsewhere in section 3.17.2.4 (again forcing the reader to go to another section to complete the evaluation of a single topic). Our concerns with Section 3.17.2.4 are presented below. Again the DEIS should recognize that regulatory compliance is not necessarily equivalent to no adverse environmental impact. 113-121

In Section 3.17.2.4 (Hazardous Air Pollutants in Ambient Air and Potential Health Hazardous), the DEIS states that the annual operational emissions of VOCs from the Valdez Marine Terminal are four times higher than emissions from other areas along the TAPS. The DEIS then refers to the Valdez Air Health Study (Goldstein et al. 1992). In that study the estimated proportion of VOCs in ambient air attributable to the Valdez Marine Terminal was estimated by the release of a tracer gas from the Valdez Marine Terminal. Using that tracer, the study estimated that only ten percent of the VOCs exposures in Valdez were attributed to the Valdez Marine Terminal emissions. It is not stated whether the tracer study was conducted over one day, one week, one month, or many 113-122

months. It states that the tracer results are in line with prevailing winds (50 to 60 percent of the time) and that indoor air in general has higher VOC concentrations (from heating fuel, solvents, cigarette smoke, etc.) than outdoor air. Those other sources are not going to be responsible for releasing 105 tons of BTEX per year, and they wouldn't show the spatial trends observed in the outdoor monitoring program. The literature cited in the DEIS is not consistent with the purported impacts.

113-122 (Cont.)

In the last paragraph of section 3.17.2.4, the DEIS states that "since the Valdez Marine Terminal only contributes about 10 percent to the outdoor residential area VOC concentrations, and since VOC emissions from the Valdez Marine Terminal have decreased substantially since the time of the study, is concluded that current TAPS associated emissions are not likely to lead to adverse human health impacts." This conclusion is flawed for two reasons: (1) the tracer studies cannot be used to definitively state that only 10 percent of the outdoor BTEX concentrations measured in Valdez comes from the Valdez Marine Terminal, and (2) no measurements have been made that demonstrate the VOC emissions from the terminal have decreased over the last ten years to a level without environmental impact. The presumption of substantially decreasing emissions is predicated on the un-verified assumption that the emissions from tanker loading operations without the vapor controls was the only significant source, and the fact that a vapor recovery system installed in 1998 totally eliminated this source. The validity of this assumption needs to be verified in the DEIS.

113-123

The BTEX emission estimates in the DEIS do not include emissions from the ballast water treatment facility. Payne et al. (2002) have independently estimated that BTEX emissions from the Dissolved Air Flotation Tanks alone are 105 tons per year. The text on page 3.17-10 the DEIS states "the ambient benzene levels at residential locations was lower, within the 10^{-6} to 10^{-4} (1 in one million to 1 in 10,000) increased cancer risk range level used by the EPA as an indicator of acceptable risks (EPA 1990)." A 1 in 10,000 increased cancer risk as stated in the DEIS and shown in Table 3.17-4 is not likely to be acceptable to the citizens in Valdez. Furthermore, if the emissions are substantially higher than the quantities derived from Goldstein et al. (1992), the risk could be much higher. Worker exposure at the Valdez Marine Terminal appears to not have been addressed at all. Note that the Goldstein et al. (1992) report, commonly referred to as the "Valdez Air Health Study", was controversial in its day, and it still is today. It should not be used exclusively in the DEIS to assess environmental impacts from emission of hazardous air pollutants at the Valdez Marine Terminal.

113-124

There is considerable discussion of persistent organic pollutants (POPs) and "persistent, bioaccumulative, and toxic" (PBT) chemicals in arctic marine mammals and fish, and their potential accumulation in body burdens of Alaskan Natives living along the North Slope and elsewhere in Alaska. Most of the data are for PCBs, which are believed to have accumulated from the diet of the Natives in various populations in Alaska and western Canada. There are no data, however, for Alaskan or Canadian body burdens of PAHs, although the most well studied PAH (benzo(a)pyrene) has been identified as a PBT. PAHs are components of crude oil, and as reported in the DEIS, their main adverse health effect is cancer.

Section 3.17.2.2 discusses cancer rates among Alaskan Natives. The overall age-adjusted cancer incidence rate for 1993-1997 was slightly higher among Alaskan Natives than the U.S. White population. Lung cancer rates were twice those of Whites; however this increase is attributed to increased rates of cigarette smoking. The rate of stomach cancer in Alaska Natives was three times higher than the rates in Whites. Rates of digestive system cancer's overall were about twice those in Whites. Digestive system cancers may be a particular concern because they are associated with PAH exposures. PAHs are present in crude and refined products, but exposures to cigarette smoke and smoked food products are also common. If PAH levels in shellfish collected for subsistence are elevated to begin with because of residues from the EVOS or other oil spills or effluent from the BWTF, then the Native Alaskans could be at even higher risk because of increased exposures. None of these issues are addressed in this section or anywhere else in the DEIS. 113-125

The inset in section 4.3.9 (page 4.3-15) states that hazardous air pollutant emissions from TAPS are estimated to contribute little to the ambient contaminations in residential areas. As stated above, this statement is not exactly true for the city of Valdez. Elevated levels of BTEX were detected during the monitoring study, and the Valdez Marine Terminal is the largest generator of HAPs in the area. Within the city of Valdez of the contribution of HAPs from the terminal was estimated to only be 10 percent, however that was based on tracer studies reported in an Alyeska-sponsored study (Goldstein 1992) that was not widely available for independent evaluation during the 45 day review period. 113-126

One of the more disturbing elements of the DEIS is the fact that the reader is constantly redirected to other sections to find critical information on a given issue. An example of this is on page 4.3-15, section 4.3.9 Air Quality, where the reader is directed to section 4.4.4.6 to get additional information on air quality impacts from accidental releases or spills of crude oil and petroleum products. The DEIS should be reorganized so that all information related to a given subject area is presented in one place. 113-127

In the middle of section 4.3.9.2 Hazardous Air Pollutants (page 4.3-18) a reference is made to Table 3.13-11 (in another section), which contains data on ambient concentrations of six HAPs collected at four monitoring sites in the Valdez area between November 1990 and October 1991. This study was completed when the TAPS average crude oil throughput was 1.8 million barrels per day and before the installation a vapor control recovery system for Berths 4 and 5. The DEIS then estimated that recovery of VOCs by the tanker vapor recovery system would result in elimination of 27,600 tons per year of VOCs containing HAPs, a value that is eight times the current estimate of potential VOCs emissions from the Valdez Marine Terminal. How can the DEIS claim credit for removal of more than is generated based on calculated efficiency alone? Furthermore, the tanker VOCs recovery system may remove a significant fraction of the VOCs from loading operations, but it does not address the issue of the BTEX released by the DAF units, an issue that is completely ignored in the DEIS. 113-128

In the footnote on page 4.3-18, hazardous liquids are defined to include petroleum, petroleum products, or anhydrous ammonia. In other parts of the DEIS, petroleum (specifically crude oil) is not considered to be hazardous. This inconsistency should be resolved. 113-129

On page 4.3-21 (section 4.3.11.4 Road) the DEIS states that Alyeska personnel drive over 11 million miles per year, and yet there is no air quality impact. What about wear and tear on highways? How does this level of surface transportation compare to the next largest industry in the state? 113-130 113-131

Section 4.3.13.2.2 Hazardous Air Pollutants in Ambient Air and Potential Health Hazards (on page 4.3-39) discusses risk calculations based on the Valdez Air Health Study (Goldstein et al. 1992) but scaled to represent the varying throughput levels assumed for the duration of the thirty-year TAPS renewal project. We submit that the estimated BTEX concentrations from this analysis are low because the scaling did not take into account the BTEX emissions from the DAF units as described above. The risk analysis uses the data from Goldstein's 1992 study, and this section of the DEIS actually goes into more detail to partially describe that study. A key component of all of these analyses is the assertion that the tracer study completed as part of the Valdez Air Health Study allowed Goldstein et al. to estimate that Valdez Marine Terminal emissions only contributed up to about 10 percent of the residential area BTEX levels. The DEIS did not, however, describe the conditions under which the tracer study was completed or the study duration. This information must be presented in the final EIS to support the DEIS conclusion that no non-cancer adverse health impacts would be expected in the general public from inhalation of TAPS-associated 113-132

emissions during the renewal period. In addition, the DEIS concluded that the fenceline ambient levels and potential cancer risks were less than the EPA's level of concern of 1×10^{-4} (1 in 10,000) and that this should be protective of the general population because no one lives at the fenceline. The DEIS gave no consideration, however, to the employees working around the BWTF or in the control room near the DAF units (they are covered by OSHA and their health and safety are considered to be outside the scope of the DEIS). Finally, the DEIS concludes that because two of the four tanker berths at the Valdez Marine Terminal now have vapor control systems, which decrease the VOCs emissions by a factor of more than 10, that cancer risks would be expected to be even lower than those estimated from the 1991 Valdez Air Health Study. The DEIS still needs to address the fact that although the VOC emissions from the tanker loading operations may have been cut by a factor of 10, emissions from the DAF units and the biological treatment tanks in the BWTF are still high, contributing an estimated 580 pounds of BTEX per day (105 tons per year) to the atmosphere in the Valdez area.

113-132 (Cont.)

On page 4.4-70 in section 4.4.4.6.2 Estimation of Emissions, the DEIS considers emission rates from crude oil spilled onto running waters. The HAPs emission rates from oil on flowing water are probably significantly underestimated if they were predicted from a rectangular slab of unspecified thickness. Oil actually spreads out onto very thin sheens in the central channels of most rivers and streams, and re-aggregates in rips and pools formed in eddies behind rocks and other obstructions. From oiled stream studies conducted in Alaska, it has been shown that evaporation is significantly enhanced for extremely thin (silver sheen) slicks, with all components below n-C 15 (including all HAPs plus several alkyl-substituted naphthalenes) released into the air within minutes (Clayton et al. 1985). This is probably not so much a factor in marine oil spills where the differential velocity of the water and oil layers is not as large. The estimates of HAPs emissions from the flowing water scenarios should be significantly increased to reflect these findings.

113-133

On page 4.4-71 (in section 4.4.4.6.3 Dispersion Modeling) the DEIS states that emissions of VOCs from crude oil spills, including HAPs, are known to be negligible for approximately 24 hours after a spill occurs. That statement is absolutely wrong. The evaporation rates are at their highest immediately after a spill occurs (Payne et al. 1984), and that is when the air quality impacts are at their highest. Inaccurate statements such as this detract from the credibility of the entire DEIS.

113-134

3.6 Water quality

Page 2-13 discusses inputs to the BWTF, but it is unclear if the BWTF would be able to handle the surfactants (and seawater) used to flush the pipeline during cleanout and decommissioning. This should be addressed in the DEIS. 113-135

There are currently 4 operating oil-loading berths at the Valdez Marine Terminal (page 3.1-18). Berths 4 and 5 have vapor-control systems and are the primary loading berths. Berths 1 and 3 are not vapor controlled but remain available for use. Berth 1 is inoperable because critical parts have been removed from it. Use of Berth 3 is limited by the provisions of the marine Vessel Loading Rule to a maximum of approximately 15,000,000 barrels of crude per year. Future use of Berths 1 and 3 is under study by Alyeska. The DEIS further states that ballast waters from incoming tankers are pumped to the BWTF for treatment before discharge to Port Valdez in accordance with federal and state permits, but no additional details are provided. It also claimed that vapor from tankers and crude storage tanks are pumped to the vapor recovery system. This may be true; however, there is no vapor recovery system for the Dissolved Air Floatation Tanks (DAF) used to treat the estimated 12 MGD of ballast water discharged to Port Valdez each day. 113-136 113-137

Figure 3.1-4 (on page 3.1-19) fails to show the dissolved air floatation tanks for the ballast water treatment facility. The BWTF is identified, however, the component parts are not delineated. Unless considered in more depth later, this lack of detail would explain the absence of any information on atmospheric pollutant discharges associated with the BWTF. The location of the ballast water treatment facility diffuser is not indicated on the figure. In the description accompanying the figure (page 3.1-19), no mention is made of target or actual effluent limitations for the treated ballast water released from the BWTF. 113-138 113-139

On page 3.7-11 in Section 3.7.2.5 (Surface Water Quality Along the ROW) the DEIS states that there are no data to compare water quality in the streams along the ROW with pre-pipeline conditions. Nevertheless, the DEIS states that operations have not significantly affected stream or river flows, and that existing surface water quality conditions along the ROW are expected to be similar to pre-pipeline conditions. The statements are based on ADEC measurements, observations by three watershed councils, and general compliance with NPDES permits. 113-140

On page 3.9-1 (Section 3.9 Physical Marine Environment) the DEIS describes the physical environment within Port Valdez, and briefly touches on parts of Prince William Sound through Hinchinbrook Entrance. Discussions of hydrography and circulation within Port Valdez are based on studies by Colonell (1980); however, recent reviews by Payne et al. (2001 and 2002) suggest that the 113-141

residence time for waters within Port Valdez are considerably longer than the few weeks estimated by Colonell. Impacts from BWTF effluent to the Port, as considered in detail by Payne et al. (2001, 2002), should be considered in the DEIS.

113-141 (Cont.)

Section 3.11.1 (Discharges from the Valdez Marine Terminal) states that the Ballast Water Treatment Facility (BWTF) and sanitary water treatment plant for the Valdez Marine Terminal are in compliance with NPDES permits that regulate discharges from the terminal to marine waters. Potential impacts of certain chemical components in the discharges (especially polynuclear aromatic hydrocarbons (PAH) associated with the BWTF) to biological resources in marine waters are not explicitly covered in the DEIS, but they were the subject of a recent review by Payne et al. (2001). In addition, components of the BWTF operations and the associated NPDES discharge monitoring program were the subject of a second review by Payne et al. (2002). The findings from both of these reviews (which determined that between 0.8 and 1.6 barrels per day of ANS crude oil are being discharged as finely dispersed oil droplets into Port Valdez) should be considered in preparing Section 3.11.1 of the final EIS. In addition, the final EIS should complete an assessment of the potential for additional future adjustment(s) to the NPDES permit for Valdez Marine Terminal discharges to the port.

113-142

Section 3.11.3 -- Hydrocarbons, states that hydrocarbons present in the waters of Port Valdez and Prince William Sound come from a number of sources including natural background from oil seeps, oily shales, and coal; historic TAPS operations and related activities; past anthropogenic sources such as spills and industrial operations; the Exxon Valdez oil spill in 1989; ongoing TAPS operations and related activities; and ongoing anthropogenic activities not related to TAPS, such as boating, fishing and atmospheric fallout. One of the largest sources of atmospheric hydrocarbons, which can be reintroduced to the marine environment through precipitation is from the dissolved air flotation tanks of the BWTF, and yet, they received almost no coverage in the DEIS.

113-143

On page 3.11-4 (still in Section 3.11.3 - Hydrocarbons) the DEIS states that hydrocarbons measured in the water column of Port Valdez between 1976 and 1978 (before Valdez Marine Terminal operations) included pristane, heptadecane, other alkane chains, and squalene. All these components are derived from biogenic origins. After the operations began at the Alyeska Marine Terminal water samples from the area near the diffuser showed additional hydrocarbons including xylenes, alkyl benzenes, naphthalenes, and phytane (Colonell 1980). These compounds are exclusively associated with anthropogenic petroleum hydrocarbon sources. More recent water column data

113-144

from the port are reported in Salazar et al. (2002) and Payne et al. (2001, 2002), and the DIES should include the data from those programs to document the changes that have occurred to the port over the last 23 years.

In calendar year 2000, 705,399 gallons of treated waste water was discharged to Port Valdez from the sanitary waste treatment plant at the Valdez Marine Terminal under the NPDES permit issued jointly by the EPA and ADEC. On page 3.16-3 the DEIS states that the largest volume of wastewater generated (93 percent) is from the tanker ballast water treated by the BWTF at the Valdez Marine Terminal. In calendar year 2000, average daily effluent flows from the BWTF were 10.37 million gallons per day, and the total amount of treated water discharged was 3,785,050,000 gallons. At the NPDES approved and average measured total oil and grease content in the BWTF effluent (Payne et al. 2002), this volume resulted in over 9,270 gallons (221 barrels) of weathered Alaskan North Slope crude oil being discharged to Port Valdez over that time period. That fact, however, is not mentioned anywhere in the DEIS. This NPDES permit is currently being re-issued, and Payne et al. (2002) completed a detailed review of the permit application and BWTF discharges to Port Valdez. Also, Payne et al. (2001) evaluated over eight years of PWS RCAC LTEMP data from Port Valdez and other PWS RCAC programs to assess the overall toxicological impacts of the BWTF effluent discharges to the Port, but neither of these critical reviews were included in evaluating the data for or preparing the DEIS. 113-144 (Cont.)

Section 4.1.2.7 Ballasts Water Treatment at the Valdez Marine Terminal indicates that when originally constructed in 1976, the BWTF used three 18 million gallon steel primary gravity-separator tanks and six 240,000 gallon secondary dissolved-air-flotation cells to remove oil before discharging the saline tanker ballast water to Port Valdez. The waste discharge limitations imposed on the BWTF in the NPDES permit were later revised to include a limit on BTEX. As a result, two aerated impound lagoons were replaced in 1990 by a permanent biological treatment facility consisting of two 5,500,000 gallon concrete aeration tanks equipped with a submerged-jet aeration and mixing system. To provide additional reliability and polishing, air strippers were installed downstream of the aeration tanks to remove occasional spikes of BTEX in the event of a biological upset. These systems are described fully in Payne et al. 2002. 113-145

Page 4.1-14 states that additional discussions regarding wastewaters delivered to the BWTF and the character of the discharges from BWTF to the sound are provided in section 3.16. As noted earlier, separating these sections discourages the reader from actually finding out what happens in the treatment of waters processed through the system. This document is so large and unwieldy that referring to other sections to complete a thought or description generally discourages the reader from tracking down and finding out what really occurs. 113-146

This is particularly true when working from the compact disk, where different sections are contained in different files. In this instance, neither section discusses the volatile emissions of BTEX associated with the dissolved air flotation units or the biological treatment system. As previously discussed in this review, these operations currently are estimated to release over 580 pounds of BTEX to the atmosphere at Port Valdez per day (Payne et al. 2002). 113-146 (Cont.) 113-147

There is a small inset on page 4.1-13 describing the BTEX fraction as polar organic compounds routinely present in crude oil as well as refined petroleum products. There is no mention of the carcinogenicity of benzene and the toxicity or brain damaging effects from several of the other compounds. The inset incorrectly states that BTEX fraction can often be used to identify the chemical "fingerprint" of crude oil or refined petroleum products, but it does correctly state that they have the greatest mobility in the environment. These compounds are so mobile and volatile that they do not persist in spilled crude oil or petroleum products (to assist with "fingerprinting" as alluded), and they are instead significant contaminants of concern with regard to air pollution and worker exposure. None of these considerations are addressed in the inset. 113-148

Sections 4.2.4.1, 4.6.2.8.1, and 4.6.2.12.2 suggest that the final breakdown of the pipeline (as part of the no action alternative) will involve cleansing and scrubbing with "…a mixture of seawater and cleaning solution (e.g., alkaline solutions with chemicals such as trisodium phosphate or nonaqueous surfactant) …." This mixture would also be received and treated at the Valdez Marine Terminal BWTF before ultimate discharge to Prince William Sound pursuant to NPDES permit requirements." The NPDES permit does not adequately address the functioning of the BWTF as a receptor and discharge for these materials. Therefore, the DEIS should address how the biological digester would be maintained with the input of alkaline rinse solutions. 113-149

Page 4.3-12. The first paragraph of section 4.3.8.1 should include treated ballast water as a category of discharges from the Valdez Marine Terminal. 113-150

In the inset on page 4.3-12 it says that Valdez Marine Terminal releases resulting from normal operations under the proposed action would not be expected to be different from historical impacts and could decrease with decreasing throughput. The DEIS should acknowledge that existing discharges contribute 0.8-1.6 barrels of dispersed Alaska North slope crude oil per day to the Port, and that hydrocarbons associated with these discharges have been detected in mussels and sediments analyzed as part of PWS RCAC LTEMP (Payne et al. 2001, 2002). 113-151

Page 4.3-13 of the DEIS includes the treated ballast water as part of the discharges, and notes that it makes up 93 percent of the discharge to the Port. The range of volume is expected between 10 million gallons per day to a low of 3.5 million gallons per day over the next ten years of operations, with the lower volume then expected to hold steady after that. The DEIS states that the discharges are within NPDES permit limitations, but the amount of contamination introduced into the water support Valdez is not specified. 113-152

Figure 4.3-2 on page 4.3-14 compares oil throughput and treated ballast water discharges in a graphical manner that shows a relationship between these values. All future impacts are predicated on a continued decline in oil throughput from the TAPS. Nowhere in the DEIS, however, is there a discussion of what discharges might look like if throughput rises because of production at new fields or if production starts at ANWR. The DEIS should also consider these potential alternatives. 113-153

Section 4.3.8.3 (page 4.3-15) states that hydrocarbon discharges are discussed in section 4.3.8.1, but the discussions are without substance. There is no mention of hydrocarbon concentrations or total hydrocarbon loadings to the port in that section. If the DEIS redirects the reader to a different section to find specific information, the information should be present at the location cited. 113-154

Section 4.3.8.4 (page 4.3-16) alludes to "small hydrocarbon emissions addressed above", and yet there is no discussion of hydrocarbon emissions in the preceding sections. 113-155 There is a brief discussion of sediment studies around the terminal, however the DEIS does not address the fact that those sediment studies did not use appropriate analytical methods to accurately detect most of the specific alkylated PAH components that are associated with Alaska North Slope crude oil (Payne et al. 2002). 113-156

Section 4.3.13.2.1 Ballasts Water Treatment Facility Effluent (page 4.3-38) states that low concentrations of polycyclic aromatic hydrocarbons (PAHs) are present in untreated ballast water but have rarely been found above detection limits in the treated effluent. The analytical methods used were antiquated. More recent tests completed by Salazar et al. (2002) and Payne et al. (2001; 2002) have shown 36 ppb concentrations of PAH in the treated effluent. This is equivalent to 0.75 barrels of oil per day being introduced to Port Valdez at the current oil throughput of approximately one million barrels per day. This (or greater) concentration of NPDES-permitted hydrocarbon input has been going on day after day, week after week, month after month, and year after year for the last 25 years. Measured PAH concentrations in the mussels around the port suggest that the mixing zone is actually Port Valdez itself. It is true that BTEX in the effluent has been drastically reduced, but most of the reduction has been because 113-157

the BTEX is released to the atmosphere by the dissolved air flotation tanks and the biological treatment system. Payne et al. (2002) estimated that 580 pounds of BTEX per day (or 105 tons per year) are introduced to the atmosphere at the Valdez Marine Terminal from the dissolved air flotation units associated with the BWTF alone. All of these findings should be addressed in the DEIS. Also, the biological treatment tank component of the ballast water treatment facility is going to be more difficult to maintain as oil throughput and concomitant ballast water volumes (also influenced by double hulled tankers) decrease as predicted throughout the DEIS. Nothing is mentioned in the DEIS as to how those problems will be addressed in the future.

113-157 (Cont.)

113-158

On page 4.3-63 (Section 4.3.18.1 Impacts to Spectacled and Steller's Eiders) the DEIS states that water quality impacts from the Valdez Marine Terminal effluent discharge to Port Valdez have not resulted in water quality degradation during the past 25 years of operations, and no such degradation is anticipated during the renewal period, when discharges will be substantially reduced. As mentioned above, potential water quality degradation has only recently been recognized in Port Valdez, and BWTF-sourced PAH contamination of mussels along the shorelines has now been documented; see Payne et al. (2002) for a discussion of the effectiveness of the NPDES process and associated Alyeska monitoring programs. This concern also applies to the water-quality discussions in Sections 4.3.18.2 and 4.3.18.3 on pages 4.3-63 and 4.3-64. None of the Prince William Sound RCAC studies were reviewed or cited in assessing the impacts from the BWTF discharges to Port Valdez, so it is not accurate for the DEIS to state that there have been no measurable impacts on any species. The DEIS should present a more comprehensive evaluation of water quality impacts, including citing publicly available reports sponsored by the RCAC.

113-159

113-160

Page 4.4-107 does not provide a balanced assessment of impacts to salmon following EVOS. Only Exxon sponsored studies are cited, and genetic, pathological, and growth impacts on salmon and other resources from exposure to Alaska North slope crude oil are not cited (e.g., Carls et al. 1996; Carls et al. 1999; Heintz et al. 1995; Heintz et al. 1999; Marty et al. 1997; Murphy et al. 1999; Rice et al. 2001; Roy et al. 1999). The DEIS should be revised to present a balanced evaluation of impacts to fishery resources of PWS from a catastrophic release of oil from tankers and land-based facilities.

113-161

Page 4.7-93 states the EVOS "probably had some impacts on fish." This statement does not accurately reflect the current science on the EVOS, which clearly indicates substantial impacts on herring and salmon in PWS occurred following the spill. See the literature cited below for scientific articles that document the adverse effects of Alaska North slope crude oil on fish.

113-162

3.7 Sediment Quality

Page 3.11-4 discusses background sources of hydrocarbons (coal, oil shale, soot, natural seeps, etc.) in Prince William Sound and (to a lesser extent) Port Valdez sediments, but it does not adequately discuss the significant elevation of hydrocarbons, including toxic polynuclear aromatic hydrocarbons (PAHs) that are released and contaminate intertidal and subtidal zones in a large-scale spill. This section also does not adequately convey that natural background PAH derived from coal, shale, soot, and other solid matrices presents a very low bioavailability form of PAHs. This is important because the text suggests that there is wide spread PAH contamination in PWS that discounts the elevation of bioavailable and toxic PAH contamination caused by a large scale spill such as EVOS. Additionally, oil spills may cause persistent PAH contamination in ecologically sensitive areas because of trapped subsurface oil (Short et al. 2002). .

On page 3.11-5 of the DEIS, sediment hydrocarbon data are reported from Port Valdez studies completed by Feder and Shaw (2000) as part of the Alyeska Environmental Monitoring Program (AEMP). It is specifically noted in the DEIS that the levels are below various sediment quality guidelines, and total aromatic hydrocarbon concentrations in the shallow sediments near the BWTF diffuser ranged from 20-50 ng/g. Values in deeper sediments ranged from 15 ng/g near the diffuser to 30 ng/g in the far field. The two-fold increase in values away from the diffuser was interpreted as possibly suggesting hydrocarbon sources in Port Valdez other than the Alyeska Marine Terminal; however, a complete set of PAH analytes (including most of the alkylated PAH homologues associated with ANS crude oil) was not analyzed by the FID GC techniques used in the Feder and Shaw (2000, and earlier) studies, so definitive source identifications were not possible. Sediment samples at the Alyeska Marine Terminal and at Gold Creek (6 km across the port) have also been analyzed as part of the PWS RCAC LTEMP (see Payne et al. (2001) for a synthesis of 8 years of data). In general, significantly higher (200-800 ng/g) total PAH concentrations were measured in the Alyeska Marine Terminal sediments by selected ion monitoring (SIM) GC/MS, which specifically identifies alkylated-PAH homologues from a larger target analyte list that allows more accurate source identification. In those samples, the majority of the hydrocarbons detected could be attributed to input from Alyeska Marine Terminal operations, with lesser contributions from biogenic sources. By way of comparison, the Gold Creek sediments ranged from 40-111 ng/g, and a mixture of sources including biogenic, background anthropogenic, and AMT discharges could be identified. None of the PWS RCAC LTEMP studies (KLI 2000, and references therein, Payne et al. 1998, 2001, and 2002) were evaluated as part of the DEIS. As such, the final EIS should re-evaluate the results of the sediment hydrocarbon measurements available for Port Valdez and attempt to reconcile

113-163

the differences in the measurements completed by Feder and Shaw and the PWS RCAC LTEMP to more accurately quantify the sediment impacts associated with past Alyeska Marine Terminal operations.

113-163 (Cont.)

Page 3.11-9 indicates that 1998 sediment levels of PAHs in Prince William Sound from the Exxon Valdez oil spill were below "low effect levels," and cites a toxicity level of 4 mg/kg total PAHs. Consensus based median effect concentrations are 1.8 mg/kg for sediments with approximately 1% organic carbon (Swartz 1999). It is unclear how a "low effect" level of 4 mg/kg can be justified in the DEIS when a median probability of adverse effects occurs at a lower level. This section of the DEIS also ignores substantial quantities of buried intertidal oil that may cause PAH exposure to intertidal and shallow subtidal organisms. The DEIS should present a more accurate view of current conditions, and the potential for exposure and toxicity from large scale oil spills such as EVOS.

113-164

Section 3.18.3 on Prince William Sound contains a page and a half description of the islands and mainland of Prince William Sound. Most of the discussion centers on vegetation type and no consideration is given to intertidal and subtidal sediments or the infauna and epifauna of the region. Review of Section 3.19 (Fish, Reptiles, and Amphibians) revealed that intertidal organisms, and in particular, sediment infauna and epifauna are completely ignored in that section as well. Intertidal and subtidal sediments and infauna/epifauna are not considered in any detail anywhere in the DEIS. In that the intertidal regime is usually impacted to the greatest degree in the event of a marine oil spill, much more attention should be devoted to this regime in the DEIS.

113-165

On page 4.3-51 (Section 4.3.16.1 Impacts of Alteration and Loss of Habitat) the DEIS states that discharges from the BWTF are below NPDES limits and that PAH levels in the deeper sediments near the terminal in 1999 did not exceed sediment quality guidelines (Feder and Shaw 2000). As noted above, this conclusion ignores several PWS RCAC studies showing accumulation of BWTF-sourced PAH in sediments adjacent to the terminal and in mussels at both the Valdez Marine Terminal and across the port at a control station located at Gold Creek (KLI 2000 and references therein; and Payne et al. 2001, 2002). In addition, the analytical methods utilized in the sediment studies of Feder and Shaw (2000) were not sufficiently sensitive to detect many of the alkylated PAHs associated with Alaska North Slope crude oil. As a result, the DEIS should not simply conclude that BWTF effluent is unlikely to impair sediment quality.

113-166

3.8 Human Health and Safety

Page 2-14 indicates that the analyses used to estimate carcinogenic risk through consumption of fish or shellfish were based on antiquated analytical methods and ignored the majority of petroleum-related PAH components present in BWTF effluent (Payne et al. 2002). 113-167

Footnote "b" to Table 3.13-11 on page 3.13-20 requires clarification. It states that one-hour, eight-hour, and 24-hour concentrations are the highest values. It then goes on to state that eight-hour and 24-hour concentrations are running averages. The DEIS should clarify how exposure concentrations were derived. 113-168

Table 3.14-1 lists the 2001 population of the Zook subdivision of Valdez as 89. The DEIS should clarify why the entire population of Valdez wasn't used instead of a subdivision. 113-169

The inset on page 4.3-35 (Section 4.3.13 Human Health and Safety) states that effluent from the ballast water treatment facility has not been shown to present an elevated carcinogenic risk through the consumption of fish or shellfish from Port Valdez. Then again in Section 4.3.13.2.1 -- Ballast Water Treatment Facility Effluent (page 4.3-38), the DEIS concluded that human carcinogenic risk from consumption of fish and shellfish does not exceed 1 in 100,000, and that it does not exceed thresholds for mutagenic or teratogenic risks. The cancer risk threshold for residential exposures should more appropriately be 1 in one million. The statements in the DEIS were presumably based on monitoring programs executed by Alyeska; although the source of the data was not cited. It has recently been shown that the analytical chemistry methods used by Alyeska's consultants in those monitoring programs were inadequate to detect many of the compounds of concern (Payne et al. 2001 and 2002). The DEIS should be revised to reflect the most recent findings by Payne et al. cited above. In addition, measured concentrations of BWTF-sourced PAH in mussels from Port Valdez examined as part of the PWS RCAC LTEMP have been consistently higher than levels measured as part of NOAA's subsistence food monitoring program in Windy Bay following the Exxon Valdez oil spill. Those facts should also be considered in the DEIS before making statements about the lack of any impacts of the proposed action on human health and safety. 113-170

In the same inset (on page 4.3-35), the DEIS states that human health risks from inhalation of TAPS associated emissions are below EPA levels of concern. That conclusion is based on data reported by Goldstein et al. (1992) in a Alyeska-sponsored monitoring study at four locations in Valdez. In that study, elevated levels of BTEX were measured in a gradient away from the Valdez Marine Terminal, however, the authors concluded from a gas tracer study (which was not described in any detail in the DEIS) that no more than 10 percent of the 113-171

measured BTEX could have come from the terminal. With that caveat the cancer risk from exposure to HAPs was calculated to be between 1 in 10,000 (10^{-4}) and 1 in 100,000 (10^{-5}), which is that the high end of the range considered to be acceptable by EPA. More recent air quality studies, literature, and data such as those reported and summarized in Harvey (2002) should have also been consulted in the preparation of the DEIS. 113-171 (Cont.)

In section 4.3.13.1.2 Employee Safety (page 4.3-37) the DEIS states that TAPS employees have safety concerns and they have been increasing since 1996-7. Numerous workers reported they were afraid to raise concerns, and they were not satisfied with the responses received. Nevertheless, JPO concluded that "a vast number of items (concerns) were abated in a timely manner." The DEIS should further elaborate on the concerns raised by TAPS workers and the steps taken by Alyeska management to address them. 113-172

On page 4.4-71 there is an inset titled Impacts of Oil Spills on Human Health and Safety (in section 4.4.4.7). The air-quality/human health spill impact distances cited in the inset (and elsewhere throughout the DEIS) are too small based on the incorrect assumption that VOCs emissions (including HAPs) are negligible for approximately 24 hours after a spill. Also, in the same inset, there is a discussion about exposures from eating contaminated fish, shellfish, or marine mammals. The inset concludes by stating that unless the fish has visible oil on the surface or smells of oil, "adverse health effects would not be expected from eating fish, shellfish, or marine mammals from a spill area." Shellfish can have significant PAH loadings in spill areas even though they do not appear to be physically oiled. Stating that adverse health effects would not be expected from eating them is inaccurate and a gross oversimplification. This is particularly true for Alaskan Natives who have three times the stomach cancer rates of Whites, presumably from the higher incidence of eating smoked foods. While smoking fish and meats contributes far more PAH contamination than that associated with tainting due to oil spills, the speciation of PAHs associated with smoking processes is not the same as that released by Alaska North Slope crude oil. Any comparison would require the speciation for it to be valid. Nevertheless, it makes sense to try and limit the background PAH contamination in subsistence food diets as much as possible. 113-173

On page 4.4-74 (in section 4.4.4.7 Human Health and Safety) the DEIS states that occupational exposures for spill cleanup workers or TAPS employees are not considered, because they are regulated under OSHA. Most of these workers are citizens of the cities or villages closest to the facilities of interest where the spills occur, and as such, their exposures should not be excluded from the DEIS. 113-174

On page 4.4-78 (in section 4.4.4.7.2 Impacts from Inhalation Exposures Resulting from Spills) the DEIS recommends that the general population within the impact distances downwind from an oil spill be evacuated for a period of up to 24 hours until the plume could dissipate. This statement is at variance with the incorrect assumptions presented earlier in the DEIS that evaporation is limited during the first 24 hours. This inconsistency should be corrected in the DEIS by correctly characterizing the evaporation behavior, which predominates during the first 24 hours. More importantly, in the context of this section, VOC emissions are not negligible after a 24-hour period. The alkylated benzenes, two-, and three-ring PAH contaminants, and aliphatic components continue to evaporate at significant levels from thicker pools of crude oil for days to weeks after a spill (Payne et al. 1984). 113-175

In Table 4.4-29 Inhalation Impacts of Pipeline Spills: Maximum 1-Hour Pollutant Concentrations and Impact Distances (on page 4.4-80) the DEIS notes that for hexane, the impact distances is over 1 km from the spill site. For other HAPs the distances range from 20-400 meters. Obviously cleanup workers can be seriously exposed if proper personal protective equipment (PPE) (air purifying respirators) are not used. In the case of spill cleanup workers responding to the EVOS, respirators were seldom used because they were informed that all of volatile and hazardous materials had already evaporated from the oil. The lingering health effects for EVOS-cleanup workers referred to in the DEIS suggests otherwise. 113-176

In the subsection on Valdez Marine Terminal Spills in Section 4.4.4.7.2 -- Impacts from Inhalation Exposures Resulting from Spills (on page 4.4-82) the DEIS indicates that only the largest "very unlikely" spill would have emissions that could intersect the residential areas of Valdez (see Table 4.4-30 on page 4.4-83). In this scenario, over 6 million gallons of oil was assumed to be contained on the water of Port Valdez within booms covering 86 acres and extending approximately 1/2 mile north of the terminal. As noted above in our consideration of the Adequacy of the Spill Scenarios for Evaluation of Environmental Consequences, it is unrealistic to assume that 6 million gallons of oil could be captured and successfully contained within a boom two hours after it was spilled (as stated in the DEIS, the oil would have to have a thickness of about 2.6 inches on the water surface), and under the wind conditions specified in the scenario, large portions of the slick would easily be blown by the wind to the edge of the city where the shoreline would be heavily oiled. Under these conditions, emissions would be, a significant issue. This more realistic scenario was not evaluated in the DEIS. 113-177

As in several other sections of the DEIS, the utilization of completely unrealistic scenarios to predict the lack of significant impacts brings into question the credibility of the conclusions reached throughout the document. If all the impact 113-178

analyses are predicated on such unrealistic scenarios, then the entire foundation of the DEIS is flawed. 113-178 (Cont.)

3.9 Fire protection systems

On page 4.3-22 (section 4.3.12 Hazardous Materials and Waste Management) the DEIS notes that Halon 1301 (bromotrifluoromethane) is no longer produced because it is a Class I ozone-depleting the chemical. Consequently, Alyeska must rely on its existing stocks and purchase of Halon from secondary markets to maintain its fire suppression system. As availability of Halon decreases, Alyeska may need to undertake a wholesale redesign of its fire suppression systems and replace Halon with a different fire suppressant. Are current stockpiles of Halon sufficient to ensure the safety of the Valdez Marine Terminal and pumps stations along the TAPS? The DEIS should also state to what stage the redesign or reconfiguration of the fire suppressant system at the Valdez Marine Terminal has progressed. 113-179

The problems cited in Section 4.3.13.1.3 Fire Safety Issues (page 4.3-38) and in Section 4.3.13.1.4 Electrical Systems Issues (on the same page) suggest that maintenance and oversight of the fire control system and wiring of the vapor control system for marine tanker loading have not received the consideration from Alyeska that they should have. Although the cited deficiencies have evidently been corrected, the cursory manner in which the DEIS dealt with these issues was disconcerting. The PWS RCAC believes that fire control at the Valdez Marine Terminal and potential explosions in the vapor recovery system are very serious matters. The authors of the DEIS should interview Alyeska management to ensure that all these issues have been resolved and that steps have been taken to prevent them from reoccurring. 113-180

3.10 Spill Response Operations and Contingency Planning

In Section 1.3 (page 1-7) it is stated that the Alyeska can shut down oil flow through electronic instructions from the pipeline control center at Valdez in a 4 to 12 minute period. What volumes of oil could be released in this 4 to 12 minutes time period? With an average flow rate of 1,000,000 barrels per day, we note that oil is flowing at the rate of 694 barrels per minute. Additionally, each mile of pipe can contain as much as 11,818 barrels of oil. Are plans in place to prevent, mitigate, and clean up the discharge of the oil contained in a single mile of pipe? Because secondary containment generally consists of structures composed of earthen dikes with a geosynthetic liner, is their volume effectively reduced by accumulation of snow and runoff water? The DEIS should explicitly address these issues. 113-181 113-182

Table 3.1-6 TAPS Oilspill Major Contingency Equipment (page 3-17) would be more useful if the disposition of each piece of equipment along the pipeline or at the Valdez Marine Terminal were described. 113-183

The Alyeska's oil spill contingency plan, described briefly on page 3.1-21, has been significantly upgraded since EVOS, and the improved capabilities and standby contractor's should help with the containment and cleanup of a small to moderate sized oil spill in the future. It is unlikely that there are sufficient equipment and personnel available to respond to a spill of even half the magnitude of the *Exxon Valdez*. If that is in fact the case, then it would be impossible to contain a 6 million gallon spill after it has been at sea for 2 hours, and there is no point in including that spill response option in any of the spill scenarios. Brief mention is also made of PWS RCAC participation in the design of Alyeska's new response system and training activities; however, no details of PWS RCAC involvement or citations for the numerous studies and publications completed by the PWS RCAC are listed. 113-184 113-185

Section 3.7.1.5 (page 3.7-5) lists the rivers and streams between Glennallen and Valdez. This region is within the Copper River drainage, and all these streams and rivers eventually discharge into Prince William Sound. From the Lowe River crossing (MP 780) to the Valdez Marine Terminal, nearly all tributaries, streams, and creeks are considered to be anadromous fish habitat. They are critically sensitive from late summer into the winter in conjunction with fish spawning and overwintering. Other than listing the rivers streams and creeks, and stating that they are critically sensitive, very little discussion on the impact of an oil spill from a pipeline rupture to any these habitats is presented in the DEIS. A summary of potential concerns is presented below: erosion and sedimentation (particularly in braided streams), flooding, and surface water use along the ROW (mostly for TAPS personnel and construction/industrial use). Contingency plans in the event of a spill along a river or creek are broken up into five regions. Region 5 covers the area from the MP 648-800. Each spill contingency area has specific response plans for different stream segments based on detailed environmental characterization. More than 220 sites along the right-of-way are designated as oil spill equipment staging areas. The DEIS should delineate what equipment is available at each location. 113-186 113-187

If water velocities in the rivers or streams exceed safe operating limits the Alyeska will monitor and track oil until an appropriate containment and recovery area becomes available. This appears to conflict with statements regarding rapid response times and cleanup efficiencies as discussed in Section 2.8 of this review on the adequacy of the spill scenarios presented in the DEIS. The plan has many of details about how to counteract the oil under different conditions, but there is very little discussion about impacts on the stream beds or 113-188

banks or the flowing water itself. Any oil that escapes from containment by booms is assumed to form patches of sheen that evaporate, dissolve in the water column, bind with inorganic soil particles, or are removed from the water surface quickly because of vertical mixing. There is no discussion of dissolved component toxicities to fish, infauna, and epifauna. 113-189

Section 3.17.2.5 Existing Site Contamination indicates that as of August 2001, Alyeska has a total of 87 contaminated sites from spills along the pipeline (70 sites) and at the Valdez Marine Terminal (17 sites). Twenty-seven sites along the pipeline and eight at the Valdez Marine Terminal are presently classified as active sites. Active sites are currently being assessed, monitored, or mediated, with spill volumes ranging from five gallons of therminol to 33,619 gallons of crude oil. No mention is made of any of the remaining contaminated sites within Prince William Sound from the Exxon Valdez oil spill. None of the eight actively managed sites at the Valdez Marine Terminal are believed to pose a threat to drinking water. However, there is no information provided as to whether or not groundwater might be contaminated and seeping into the waters of Port Valdez. 113-190

Page 4.1-14 states that a maximum volume of approximately 54,000 barrels (2,268,000 gallons) has been calculated as the amount of oil that could be lost due to a spill from a postulated guillotine break in the pipeline. This amount includes both the dynamic volume (the quantity forced through a break due to pumping action) and the static volume. The static volume is supposedly designed to be less than a 50,000 barrel limit. The DEIS should state this 50,000 barrel limit compares to actual spills volumes from the pipeline, including the spill caused near MP 400 in October 2001 by the bullet hole from a high caliber rifle. 113-191

In Section 4.1.2.9.3, Transient Volume Balance (page 4.1-15), the DEIS states that the transient volume balance (TVD) system has become Alyeska's primary leak detection system. Given this level of importance, it might have been appropriate to include more than one paragraph in the DEIS to describe it. 113-192

In Section 4.1.3 Mitigation through TAPS Operation Controls, a subsection (4.1.3.1) of the DEIS, Administrative Controls, lists a number of programs and manuals that have been prepared and adopted to mitigate impacts from TAPS operations. The DEIS should discuss the following questions and provide answers thereto. What steps are taken to ensure that these procedures are being followed, that personnel are adequately trained in each procedure, and what are the consequences of failing to abide by these written procedures? What checks and balances are in place to ensure that the procedures are being and can be followed correctly? 113-193

In Section 4.1.4, Spill Prevention and Response, the spill contingency plans are listed on page 4.1-30. Separate plans have been prepared to cover the main TAPS pipeline and pump facilities, the Valdez Marine Terminal, and the tanker routes within Prince William Sound. The Pipeline Spill Contingency Plan is reviewed annually by the BLM, every three years by ADEC and every five years by DOT. It divides the 800-mile long pipeline into five regions, and separate spill contingency plans are prepared for each region. Each region is further broken down into segments, and contingency plans with seasonally dependent instructions are prepared for each segment.

The actual contents of the plans (Section 4.1.4) are not described, however, equipment used to prevent oil release (at least for the Pipeline Plan) is listed. An example for a summertime spill response in the Atigun River Contingency Area is presented. In the DEIS, it is stated that oil escaping containment booms on a river is assumed to form patches of sheen. It is assumed that the sheens would follow river currents downstream. They would evaporate, dissolve into the water column, bind with inorganic silt particles, and be removed from surface water quickly because of vertical mixing. What is not considered is contamination of stream banks and stream sediments by the oil. Likewise there is nothing said about the impacts of dissolved lower molecular weight BTEX or PAH components on exposed fish species or infauna and epifauna. 113-194 113-195

In Section 4.1.4.2, Valdez Marine Terminal, the DEIS discusses the Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan. This plan has been approved by ADEC. Generalized elements of the prevention programs, procedures, requirements, and equipment in place at the Valdez Marine terminal are then presented, including: preventive training programs, substance abuse programs, medical monitoring programs, security programs, transfer procedures, oil storage tanks, secondary containment, and steel piping corrosion control. The DEIS contains information sufficient for only a cursory examination of these procedures; considerably more detail is required to verify whether the procedures will work during a spill and whether sufficient resources will be available. If a spill occurs, several management positions are given different levels of responsibility during the initial response. If it's a large enough spill additional response activities are assigned to 13 additional personnel each with checklists. Coordinating activities of all these positions to avoid conflicts in resources and counter productive actions requires appropriate levels of training for all involved individuals. Descriptions of procedures to ensure smooth coordination between all these groups should have been presented in the DEIS. 113-196

Specific strategies potentially available to respond to an oil spill are listed, including: containment and control, dispersants, and in situ burning. More than a single paragraph should be used to address these critical response options. The 113-197

descriptions for each are incomplete. It is unrealistic to think that booms could contain a large spill. Under the category of dispersants, it says "approval must be obtained from either the Federal On-Scene coordinator ….." but it doesn't say who else.

113-197 (Cont.)

113-198

In Section 4.1.4.3, Prince William Sound, the DEIS covers spills from the tanker vessel at a berth or traveling upon state waters in Prince William Sound. The section begins with a description of Ship Escort Vessel Response System (SERVS), and its role in escorting tankers within Port Valdez and through Prince William Sound to the Hinchinbrook Entrance. Responses to oil spills are described in the Prince William Sound Oil Discharge Prevention and Contingency Plan, which covers the following: vessel traffic lanes, ice navigation procedures, industry ice management procedures, maximum transit speeds, pilot and watch requirements, and weather restrictions. Given their importance in preventing a recurrence of an event such as the Exxon Valdez oil spill, more than a single paragraph should have been used to describe each of these critical elements.

113-199

While there are numerous safeguards in place for tankers transiting Prince William Sound, after the tankers have passed through Hinchinbrook Entrance and they are 17 miles beyond the Sound, there is no discussion of environmental impact in the DEIS. While the area south of Prince William Sound is characterized by more open water and the probability of groundings and/or collisions decreases significantly, a major oil spill in this region could ultimately affect Prince William Sound through entrainment of spilled oil in the Alaska coastal current. Likewise, the Copper River Delta, important for millions of migratory birds each year, could be significantly oiled by such an event. No consideration is given to continued response requirements after a vessel has departed the Sound.

113-200

A significant amount of reliance for response efforts in Prince William Sound is placed upon the use of dispersants, but there is no discussion in the DEIS of dispersant effectiveness with Alaska North slope crude oil under the conditions likely to be encountered in the event of a spill (Section 4.1.4). Likewise, the possibility of using in situ burning as a spill response countermeasure is significantly oversimplified.

113-201

3.11 Tanker operations

Section 1.2 of the DEIS states that the downstream end of the TAPS extends to the end of the loading arms for crude oil located at the tanker loading berths at the Valdez Marine Terminal (page 1-7). It also states that the vapor control and

113-202

ballast water treatment systems are considered as part of the TAPS. This is inconsistent with the TAPS including the tanker routes through Prince William Sound exiting at Hinchinbrook Entrance. 113-202 (Cont.)

Section 3.1.2.2.1 Marine Transportation System (page 3.1-21) states that there is currently a fleet of 26 tankers (3 with double hulls and 13 with double sides) that service the Valdez Marine Terminal. Based on the mandates of the Oil Pollution Act of 1990, the fleet must consist entirely of double-hull tankers by 2015. It was estimated that the fleet of tankers would decrease from the present 26 to 8-10 tankers by 2020. It is stated that reduced tanker transit, use of double-hulled tankers, and other unspecified improvements in will reduce annual probabilities of accidents and oil spills; however, these projections may change if oil production increases. No contingencies for such increased oil production are considered anywhere in the DEIS. 113-203

Page 3.11-6 discusses impacts on tanker traffic from TAPS. The discussion is largely predicated on the assumption of a reduction in tanker traffic resulting from declining oil production and TAPS throughput. In line with the previous comment, this section does not consider the potential for an increase in North Slope oil production. The DEIS should address environmental impacts under a scenario of increased oil throughput, in this section and throughout the report.

Page 3.11-8 states that the maximum speed for tankers under ice escort is six knots. How long does it take to stop or change the course of a tanker at this speed? Does having an escort vessel one-half mile ahead of the tanker to assess ice hazards really allow enough time for the tanker to maneuver to avoid ice if it is encountered? 113-204

Page 3.11-8 also states that tankers transiting through Hinchinbrook Entrance are restricted when steady wind exceeds 45 knots or when the sea state exceeds 15 feet. In the next bullet, it says that tanker transits require a third escort vessel when steady winds exceed 30 knots, and then parenthetically adds that that is the wind speed at which large tanker transits are prohibited. Which is the critical wind speed when tanker traffic is shut down? The EIS should provide this information. 113-205

In section 4.3.8.4 (page 4.3-16), the DEIS states that "transit of the tankers through Prince William Sound under normal operations has also not resulted in any observed impacts on physical marine resources." That statement is inaccurate and indicates that the authors of the DEIS are using semantics to avoid a very difficult issue; specifically, that statement reminds us of the famous quote, "that depends on what your definition of 'is' is." The impacts on the physical marine resources from the Exxon Valdez oil spill cannot be excluded from consideration 113-206

because the spill was not part of a "normal operation." The DEIS should include the impacts of the Exxon Valdez oil spill in its assessment of marine transportation activities on the physical marine resources considered. 113-206 (Cont.)

On page 4.3-21 (Section 4.3.11.2 Marine) the DEIS states that in 1999 an average of 37 tankers were filled per month at the VMT when the pipeline throughput averaged 1.1 million barrels per day. It then adds that this level of activity could increase or decrease with changes in oil throughput if the ROW is renewed. This is the first instance in the DEIS where it is acknowledged that tanker traffic could increase; it is inconsistent with other parts of the DEIS that insist that oil throughput will only decrease over the renewal period. The DEIS should be revised to present a consistent set of scenarios that includes the potential for increased oil throughput. 113-207

Section 4.5.2.8 states that the current size of the tanker fleet as 26 based on a possibly outdated 1991 reference source; this value is then used to speculate that the fleet will be substantially reduced in size. A more recent reference for the tanker fleet size should be cited and projected reductions in the tanker fleet should be restated based on current data. 113-208

3.12 Environmental monitoring

Section 3.3.3 Existing Contaminated Sites (page 3.3-8). Eighty-seven sites are identified primarily from release of fuels and crude oil at pumping stations and construction camps along the TAPS right away and at the Valdez Marine Terminal. The range of releases has been from < 1 gallon to 672,000 gallons. This represents about two percent of the total number of spills reported since 1977. Seventy of the eighty-seven sites are along the pipeline; 17 are at the Valdez Marine Terminal. Of the seventy contaminated sites along the pipeline, 27 are still listed as active sites that are being monitored or remediated. Of the 17 sites at the Valdez Marine Terminal, eight are still considered active. Contaminants include gasoline, diesel fuel, turbine fuel, therminol (a synthetic heat transfer fluid), and crude oil The DEIS should address the continuing mitigation needed for these sites. 113-209

The spill volume for active sites has ranged from < 25 gallons to 33,619 gallons. The spills span the time from the mid-1970s (primarily at former construction camps and pump stations) to the most recent, including the discharge of 285,600 gallons of crude oil near MP 400 on October 4, 2001. The DEIS should clarify whether continuing mitigation is needed for these spills.

Generally surface contamination is limited to a few acres (page 3.3-7); however, contaminants have spread to subsurface water in many other sites because of the presence of permafrost and a shallow groundwater table. These sites will 113-210

probably need additional cleanup and monitoring. Table 3.3-1 (page 3.3-8) lists the 27 active contaminated sites along the TAPS. Table 3.3-2 (page 3.3-11) lists the active contaminated sites at the Valdez Marine Terminal. Based on the findings in these tables, it is apparent that continued monitoring at a number of these sites may be required for many years. The potential contamination of ground water should be examined in the DEIS. 113-210 (Cont.)

Section 3.7.2.6 contains discussion about historical spills of crude oil from the pipeline and at the Valdez Marine Terminal. Between 1977 and 1999, 4283 spills occurred. Almost all spills were either contained in a lined area or cleaned up within approximately one year. It is claimed that there have been no direct spills to surface water. Currently there are eighty-seven spill sites in Alyeska database that require management under the Alyeska Contaminated Site Management Program. Again, most of the discussion centers on treatment activities (removal of oil, excavation of contaminated soils, limited water quality monitoring, etc.) with little or no discussion of long-term impacts to the environment. On page 3.7-14 brief consideration (one paragraph) is given to a recent spill event caused when the pipeline was shot with high-powered rifle. This event released 285,600 gallons of oil, and approximately 160,000 gallons of free product has been recovered. Shallow groundwater contamination has been documented, and the DEIS states that appropriate remediation activities will be implemented. Additional discussion is presented on page 3.8-3, where the volume of heavily oiled trees, heavily oiled vegetative mat, and lightly oiled- and heavily-oiled soil removed from the spill site are documented. 113-211

Section 3.7.2.6 concludes by stating that because surface water quality has not been significantly affected, the remediation activities detailed in the TAPS contingency plan apparently have been successful. Without additional details or facts to substantiate such claims, those conclusions cannot be supported without additional development in the DEIS.

Procedures for remediation of contaminated groundwater include removal of free product and various in situ techniques including air splurging, biodegradation, and soil vapor extraction (page 3.8-3). The potential problems of air pollution or worker exposure to volatile hydrocarbons from these procedures are not addressed. Likewise, temperature constraints and the time frame for effective biodegradation are not discussed. It is stated, however, that characterization of groundwater contamination requires additional longer-term monitoring. More detail should be provided on these topics in the DEIS.

Table 3.8-1 on page 3.8-4 lists six high-priority contaminated sites along the TAPS ROW. Most of the sites required continuous monitoring for additional assessment, and one site, Toolik Camp, has required attention since the initial 113-212

spill of 13,500 gallons of diesel in 1974. All contaminated groundwater operations continue to this day, and they are not proceeding very quickly. Remediation of contaminated groundwater is very difficult, and there are not very many effective solutions. How does the DEIS address a permanent solution to these clean up problems? 113-212 (Cont.)

It is unclear why diesel fuel, gasoline, and propane are considered hazardous materials but crude oil is not [Section 3.16 ??—no page/section provided]. In addition to those materials, glycol based coolants are also present at most TAPS facilities. Hazardous wastes are delivered to permanent treatment, storage, and disposal facilities (TSDFs) in the lower 48 by truck and barge transport. The Valdez Marine Terminal is classified as a "large quantity generator" for hazardous materials. Routinely generated hazardous wastes include spent thinners and cleaning solvents, flammable paints and coatings, corrosive acids, flammable adhesives, used oils containing chlorinated compounds, spent coolants, spent aerosol cans, and crushed fluorescent lights. Sludge and residues regularly cleaned out from pump stations and Valdez Marine Terminal equipment and sumps also normal exhibit characteristics of hazardous waste. Tank bottoms and "materials in process" that are periodically removed from equipment and bulk crude oil and refined product storage tanks also exhibit hazardous waste characteristics and represent the largest volume of hazardous wastes generated. Spill debris and contaminated media also occasionally exhibit hazardous waste characteristics. Alyeska generated approximately 142,118 pounds of hazardous waste system-wide over the period of 1998-1999. Removal of this material by truck and barge certainly represents risks to the citizens in Valdez and the Natives and the villages surrounding Prince William Sound, and yet, this is not even mentioned in this section of the DEIS. The DEIS needs to assess the actual impact from this hazardous waste. 113-213 113-214

On page 3.16-4 it is stated that contaminated oil spill debris is covered by an ADEC-approved remediation plan and that stockpiles are always removed for thermal treatment after less than two years of storage at any one of 12 ADEC preapproved contaminated media storage areas. The largest of these stockpiles is at the Valdez Marine Terminal, and the amounts of contaminated soils awaiting treatment ranged from 237.4 tons in 1996 to 1561.9 tons in 2001. Are the stockpiles getting larger because of delays in treating the contaminated materials, or was there simply more contaminated material generated in 2001? There were no data presented on where the thermal treatment of this contaminated soil occurs, and whether there were any potential air quality impacts associated with this thermal treatment. Appendix C states that the soil was thermally treated by a facility with an Air Pollution Control District permit, but the location was unspecified. 113-215

3.13 Threatened, Endangered, and Protected Species

The decline in the Steller sea lion in the Gulf of Alaska and Prince William Sound is discussed (p. 3.22-17); however, it was concluded that declines in the 1990s could not be attributed to human activities. Possible explanations include: (1) competition for prey with large-scale commercial fisheries (isn't that a human activity?); (2) changes in prey abundance, composition, and distribution resulting from climactic change; and (3) ecosystem-level changes resulting from commercial harvest of predators such as whales and certain fishes (again, wouldn't that be considered the result of a human activity). There is one paragraph on the effect of the Exxon Valdez oil spill on the Steller sea lion; however, it is stated that the effect is not fully understood. Sea lions were observed swimming in and near oil slicks, oil was observed in numerous haulout sites, rookeries were fouled by oil at Seal Rocks and Sugarloaf Island, and the presence of hydrocarbon metabolites was detected in sea lion tissue. Nevertheless Calkins et al. (1994) concluded that population-level effects could not be demonstrated. They hypothesized that effects on Steller sea lion may have been less than for other species (e.g., harbor seals and sea otters) because the oil did not persist on sea lion rookeries and haulouts as long since they were located in areas of steep slopes and high surf activity. This discussion is an example of the uneven treatment which occurs throughout the DEIS. In some cases, oil spill affects are considered for certain species and in other cases they are not. 113-216

Alaska species of special concern listed in Table 3.22-1 that occur in Prince William Sound include: the olive-sided flycatcher, the gray-cheeked thrush, Townsend's warbler, and the blackpoll warbler. The marine mammals, listed under the Marine Mammal Protection Act include: the gray whale (ESA-D, MMPA-P), the fin whale (ESA-E, MMPA-D), the Beluga whale (MMPA-P, MMPA-D), the Minke whale (MMPA-P), humpback whale (ESA-E, MMPA-D, AK-E), killer whale (MMPA-P), Pacific white-sided dolphin (MMPA-P), harbor porpoise (MMPA-P), Dall's porpoise (MMPA-P), Steller sea lion (ESA-E, MMPA-D, AK-SC), harbor seal (MMPA-P), and sea otter (MMPA-P; more than 90 percent of the world's population occurs between the Aleutian Islands to southeastern Alaska). Different designations for the marine mammals with regard to the Endangered Species Act, the Marine Mammal Protection Act, and state of Alaska species of special concern (AK-SC) are presented in the table (E = endangered, D = depleted, and P = protected). With regard to the Steller sea lion, the DEIS states that three haulout areas in Prince William Sound have been designated as critical habitat (Perry Island, Point Eleanor, and the Needle). None of these areas are within Port Valdez, where the Valdez Marine Terminal is located. The DEIS should include a discussion of the impacts of the Exxon Valdez oil spill on species of special concern. 113-217

The inset on page 4.3-59 (section 4.3.18 Threatened, Endangered, and Protected Species) states that impacts to the listed and protected species from the proposed action would likely be within the range of those experienced over the past 25 years of operations. The range of impacts experienced over the past 25 years of operations included the Exxon Valdez oil spill. That event caused more than minor impacts of several threatened species and should be considered in the DEIS. 113-217 (Cont.)

On page 4.3-59 the DEIS states that the Eskimo curlew formerly nested in habitat crossed by the ROW, but that it has not been observed in the wild for decades and may be extinct. The DEIS should state whether the Eskimo curlew was considered in the original DEIS for the TAPS and whether the last 25 years of operations have contributed to its demise. This is a good example of how the DEIS assumes the baseline condition to be post-TAPS. 113-218

In Table 4.3-5 (Potential Impacts of the Proposed Action on Threatened, Endangered, and Protected Species) on page 4.3-60, the Steller's eider is identified as being present in Prince William Sound, and potential impacts from BWTF effluent are discounted because they are monitored and kept within permitted levels. During the winter and early spring in Port Valdez, PAH from the BWTF are believed to concentrate in the upper surface microlayer within the Port (Payne et al. 2001, 2002). Because of this possible exposure route to high concentrations of PAH, the DEIS should state whether the Steller's eider feeds on juvenile fish, eggs, or larval forms in the upper water column. In the same table a number of whale species are listed as frequenting Prince William Sound. Because of potential exposure to high concentrations of PAH in the surface microlayer within the Port, the DEIS should state whether or not any of these species frequent Port Valdez, and if so, which ones might feed on contaminated phytoplankton or larval fish. Finally, potential impacts from inhalation of PAH-contaminated microdroplets or PAH exposure from the surface microlayer during breaching should be considered. 113-219

3.14 Non-indigenous species

On page 4.3-52 (in section 4.3.16.1 Impacts of Alteration and Loss of Habitat) the DEIS states that it is unlikely that nonindigenous organisms would be introduced into Port Valdez as a result of releasing water treated in the BWTF. With the increased use of double hulled the tankers with segregated ballast water in the future less ballast water will be passed through the BWTF. Currently, many tankers discharge segregated ballast water directly into Port Valdez. The DEIS should address the possibility of introducing nonindigenous organisms from untreated segregated ballast water discharges and described possible treatment approaches to deal with this potential problem. 113-220

3.15 Seismic

Page 3.3-1 states that "a detailed analysis of liquefaction potential along the TAPS is beyond the scope of the study." The DEIS should include greater discussion of potential earthquake damage to the TAPS that may be exacerbated by thawing permafrost. 113-221

On page 4.3-6 the DEIS notes that the Great Alaska Earthquake was about 60 miles west of Valdez. The quake caused extensive ground cracks and landslides in the Chugach Mountains and the southern edge of the Copper River Lowland area (Ferrians 1966). Extensive damage was caused in the city of Valdez, and oil and asphalt products were lost from numerous tanks that were damaged by the earthquake and subsequent tsunami. Given that such an event has occurred in the recent past, it seems inadequate for the DEIS to address potential damage from a similar event in the future by stating "it is uncertain whether an earthquake as large and as close as the Great Alaska Earthquake of 1964 (also known as the Good Friday Earthquake, 9.2 moment magnitude) would damage the TAPS." The TAPS should address the potential for another earthquake in the Valdez area and the design features of the Valdez Marine Terminal that would protect it from an earthquake and possible tsunami. 113-222

3.16 Inland Oil Spills

Table 2-1 (page 2-8) lists the potential impacts of TAPS, but does not adequately summarize factors that may increase the risks of the proposed action. For example, TAPS impacts on permafrost soils are listed, but the impacts of loss of permafrost (e.g., climate warming) on pipeline stability are not mentioned. As noted on pages 3.12-12 and 3.12-13, Alaska has experienced a warming climate over the last several decades, suggesting the potential for thawing of permafrost soils. This section should include a discussion of implications for stability of the pipeline if there is thawing of permafrost soils. 113-223

Also of concern, the impacts listed in Table 2-1 are restricted to physical disturbances and usage. Oil spills are not discussed in Table 2-1, although a large oil spill in the Copper River drainage could be devastating to fishery resources. Table 2-1 should be revised to include the potential impact to fish relative to the maximum volume based on a realistic, worst-case scenario of a pipeline leak. 113-224

Section 3.19.1 discusses the fish in the rivers and streams that are crossed by the TAPS, but does not adequately discuss epifauna or infauna in the stream beds, stream banks, and waters upon which fish depend. Likewise, there are no data on oil toxicity or the impacts of oiled substrate on the reproductive and feeding behavior of any of the fish considered. Table 3.19-2 lists all of the streams and rivers, the bridge crossing type, and the fish species and sensitivity by month for the inland waters crossed by the TAPS. 113-225

Section 3.19.1.1.3 -- South of the Alaska Range -- states that 17 species of fish occur along the right-of-way in the Copper River drainage (MP 606-800). The Copper River is the major producer of sockeye and Chinook salmon in the Prince William Sound region. Other important species include in Arctic grayling, Dolly Varden, rainbow trout, whitefish, sculpin, burbot, and smelt. If a break in the pipeline or spill were to occur in any of these tributaries to the Copper River, significant impacts to all of the species might be expected. The Lowe River crosses the TAPS at MP 780, and nearly all the tributaries, streams, and creeks below that point are considered anadromous fish habitat. Potentially affected species include pink, sockeye, coho, and occasionally chum salmon and Dolly Varden. Each of the species would be affected by a pipeline spill upriver, and several could be affected by intertidal contamination from a spill in the Port Valdez area. Considerable literature has been written on reproductive effects of contaminated intertidal sentiments on pink salmon (Heintz et al. 1999, Marty et al., 1997), and yet, no mention of any these studies is presented in the DEIS. 113-226

Much of the DEIS (e.g., Section 3.19) simply lists the habitat or potentially affected species and does not consider any of the papers on natural resource damages due to residual oil contamination in different substrate types. Likewise effects on fish and intertidal organisms have not been considered. The DEIS should include an expanded discussion of the potential impacts of spilled oil on salmonid habitat. 113-227

As discussed in Section 3.19.1.3 Prince William Sound, sockeye, pink, coho, Chinook, and chum salmon and Pacific herring have provided the greatest commercial harvest value in recent years (Morstad et al. 1999). All estuarine and marine areas used by Pacific salmon of Alaskan origin are designated as essential fish habitat (EFH). This designation extends from the area of tidal influence in stream habitat and tidally submerged habitats to the oceanic limits of the Economic Exclusion Zone for United States. On page 3.19-35 there is a citation of a substantive reference to oil effects on fish populations in Prince William Sound from the 1989 Exxon Valdez oil spill (Rice et al. 1996; Wells et al. 1995). After this initial citation, however, the DEIS then goes on the state that "studies on initial effects and subsequent recovery of fish populations following the spill have not resulted in consensus on the extent of damage and recovery rate." After that, the DEIS does at least mention that after a record harvest in 1992, the Pacific herring population has collapsed and remains depressed with reduced or no successful commercial harvest since that time. 113-228

With regard to pink salmon, the DEIS (Section 3.19) cites statistics on fisheries yields, with a marked drop in the observed population levels in Prince William Sound during 1992-1993 followed by population level rebounds in subsequent years. It speculates that the rebound is most likely the result of improved ocean

survival rates for both wild and hatchery stocks, and that this pattern led to speculation that the spilled oil was responsible for the observed declines. The DEIS then qualifies that statement by adding the caveat that there are conflicting scientific views on this, and that no direct connection has been conclusively established (Brannon et al. 2001; Rice et al. 2001).

Additional fish population statistics are cited and some discussion of life cycles of different species is presented; however, no additional discussion was presented on the effects or impacts from the Exxon Valdez oil spill (Section 3.19). The section lists the species that might be exposed to a spill, however, it contains little discussion about oil toxicity in potentially affected species. Also, it does not address how habitat oiling might affect the exposed species over time. 113-228 (Cont.)

Table 4.4-1 lists various oil spill scenarios for TAPS. In general, this table and the accompanying text are unclear how the expected frequency of releases was calculated for various spill scenarios (p. 4.4-15). The DEIS should clarify whether the estimates were based on an analysis of small aircraft flight routes in proximity to the pipeline and the frequency of small airplane crashes in Alaska. The DEIS should also clarify if the frequency of releases from ground subsidence considered loss of permafrost from global climate change. Page 4.3-5 states that the risks of liquefaction of soils and landslides will increase, but it is unclear how an increased risk was incorporated in the scenario estimates. The DEIS should also clarify if aging of line pipe was considered in estimating the frequency of releases from corrosion leaks. The DEIS should compare the estimated spill frequency with the observed frequency of spills during the first 30 years of operation. 113-229

Page 4.4-20 discusses inland spills, but the DEIS is unclear on the number of times the TAPS crosses streams in the Copper River drainage, and the length of pipeline in proximity (e.g., 1000 feet) of streams. The DEIS should specify the number of stream crossings and length of pipeline in proximity to streams, for each drainage system traversed by the TAPS. The DEIS should also explain how this information was used in estimating the volume and frequency of oil spills into streams. 113-230

Pages 4.4-23 to 4.4-24 discusses the movement of whole product oil, but does not include an adequate discussion of ecological impacts of aqueous phase oil. Aqueous phase oil (i.e., water soluble components accommodated in the water column) is transported farther and more rapidly downstream. Additionally, minute quantities (e.g., 1 part per million of total petroleum hydrocarbons and less than 50 parts per billion of total PAHs) of aqueous phase oil can cause death 113-231

to fish and invertebrates. For example, Table 4.4-14 shows that product could travel 34 miles in Tazlina River oil spill scenario, but aqueous phase oil is not addressed. 113-231 (Cont.)

The analysis of oil spill impacts (pages 4.4-103 to 105) is flawed because it appears to implicitly assume that the only portions of a stream that will be adversely impacted from an oil spill will be the portions that directly contact free product oil. This analysis appears to ignore partitioning of the toxic water-soluble components of oil into the water column, which does not require mixing of product and water. For example, pipeline breaks involving middle-distillate oils show that aqueous phase oil can contaminant the water column of rivers to over 30 feet deep (e.g., VSWCB, 1983), thus the statement that only the upper portion of the water column would be affected is not supported. 113-232

Page 4.4-104 states that TAPS is "unlikely to block or preclude migration" of fish. The basis of this statement is unclear because literature citations are not provided. Oil spills may impede migration of anadromous fish such as salmon that depend on olfaction to locate natal streams. This possibility should be explicitly discussed. 113-233 113-234

Section 4.7.7.2.4 of the DEIS is too focused on the containment and clean up problems of spilled oil, rather than ecological impacts, and has an apparent bias towards discounting the impacts of oil spills on fishery resources. Oil toxicity should be discussed because there is an abundance of information on Alaska species (e.g., Rice et al., 1976). Specific concerns include:

- Page 4.7-93 states that direct mortality due to oil spills has seldom been documented. This statement ignores a number of inland pipeline spills into streams that have caused mass mortality of fish and which have been directly documented through fish kill investigations (e.g., VSWCB, 1983; Catchings, 1985; SCDNR, 1996). The statement in the DEIS should be corrected. 113-235

- Page 4.7-94 states that small spills (sec 4.4.1) would be unlikely to affect fish populations. Table 4.4-1 shows that the small spill category includes a 100 bbl (4200 gallons) spill volume, but the DEIS has not provided sufficient information to determine whether a spill of this volume into a salmon spawning stream could impact the reproductive success of a year class of fish. Page 3.19-31 notes that the Copper River is the major producer of sockeye and Chinook salmon in PWS, and is important to subsistence and commercial fisheries. TAPS is in proximity to the Copper River drainage from MP 606-800, and Figure 4.4-11 shows that spills of 10,000 and 34,000 gallons have occurred.

3.17 Wildlife Impacts

There is no description of the impacts of the Exxon Valdez oil spill on intertidal infauna and epifauna, and their importance to higher trophic levels (Section 3.19). Section 3.20 of the DEIS should include a discussion of impacts on birds from oil spill impacted prey and habitat.

Page 3.20-7 discusses the bird species occurring in Prince William Sound, but does not mention avian impacts from EVOS. This is not consistent with other sections of the DEIS, where EVOS impacts to fish and marine mammals are discussed (e.g., p. 3.19-36; p. 3.22-19). Page 4.4-108 of the DEIS acknowledges that multiple species of birds were not recovered 10 years after EVOS and may be impacted by persistent oil in the environment. 113-236

Limited discussions of impacts of the Exxon Valdez spill on fish and certain marine mammals (e.g., sea otters) are presented in Sections 3.19.1.3 and 3.22.3.5, respectively, of the general section for the Affected Environment. The associated section for birds (Section 3.20.3 for Prince William Sound) makes no mention of impacts to birds from the spill. At the same time, there is very brief mention of estimated effects of the spill to birds in Section 4.4.4.11 where it is noted that "100,000 to 300,000 birds were killed as a result of the Exxon Valdez spill" (p. 4.4-108). The latter information should be incorporated and possibly expanded upon in Section 3.20.3 to provide consistency in discussions of impacts of the Exxon Valdez spill to biological resources in the section for the Affected Environment.

Section 3.20 Birds has a comprehensive listing of birds that have important habitats at or near TAPS, the North Slope, or Prince William Sound; are important for human use; and use habitats common to other species. Threatened, endangered, and protected species are also considered. Interestingly, Table 3.21 does not include the Copper River delta as an important waterfowl concentration area (areas listed are those with portions within two miles of the TAPS ROW). While the delta is not close to the TAPS ROW, the pipeline crosses the Copper River drainage, and a spill of significant volume with subsequent oiling of the Copper River delta could have a significant impact on millions of migrating waterfowl. With some species, over 90% of the population are known to migrate through the Copper River Delta. None of these factors are taken into consideration in the DEIS, and it should be revised accordingly. 113-237

A fairly detailed discussion of the specific populations of birds that utilize Prince William Sound and the Gulf of Alaska is presented in Section 3.20.3. However, the impact of the Exxon Valdez oil spill on birds within Prince William Sound is not even mentioned. It may be considered elsewhere, but the presentation does not logically flow, and the impacts of Exxon Valdez oil spill have not been 113-238

adequately addressed. The DEIS briefly mentions the Exxon Valdez oil spill after the section on fish and amphibians, but an analogous treatment and discussion of the impacts on birds is needed in the DEIS. 113-238 (Cont.)

On page 3.22-18 the DEIS states that harbor seal numbers declined by 57 percent in Prince William Sound from 1984-1992. This decline began before the 1989 Exxon Valdez oil spill and was greatest in the year of the spill. The decline in harbor seal numbers in the Sound has not yet ended. In 1989, an estimated 302 seals were "missing" from haulouts that were oiled by the Exxon Valdez oil spill. The missing seals were presumed to have died from the spill. Haulouts were oiled, treated, inspected, and studied. Seals were coated with oil, volatile hydrocarbon components were incorporated into their tissues and metabolized, as shown by biochemical indicators. The section concludes with citations that suggest that single-year reductions in seals at oiled haulouts cannot be used as an estimate of oil-spill caused mortality, so here there is some equivocation in the DEIS as to the effects of the spill. 113-239

Section 3.22.3.5 -- Sea Otter -- discusses the management strategies and different stocks tracked by the U.S. Fish and Wildlife Service, and stated that subsistence harvest continues in Prince William Sound were several hundred sea otters are taken annually. Population growth in Prince William Sound was disrupted by the earthquake in 1964 and the Exxon Valdez oil spill 1989. It was estimated that approximately 2650 sea otters were killed in Prince William Sound is a result of the Exxon Valdez oil spill; 3905 otters were estimated to have been killed as a result of the spill in Alaska as a whole. By 1993, chronic effects to sea otters may have been subsiding, and recovery of the affected population appeared to be underway (Angliss et al. 2001). Various unidentified indicators were cited as suggesting that the sea otter population in spill-affected areas was recovering a few years after the spill (Johnson and Garshelis 1995). There are still ongoing studies by NOAA and NMFS that suggests sea otter populations in selected and heavily oiled regions of the Sound have yet to recover completely. Sea otters and harlequin ducks have not recovered in the North Knight Island area, raising concerns that continued oil exposure may be affecting their survival (Ballachey et al. 2000a,b; Trust et al. 2000). Biochemical assays and mortality patterns are consistent with continuing oil exposures, but linkages between oil persistence studies and impact studies have not been complete to date (Monson et al. 2000; Esler et al. 2000). Only one (Monson et al. 2000) of the most recent NOAA and NMFS studies cited above was mentioned in the DEIS. The DEIS should be revised to include a more comprehensive consideration of oil spill impacts on wildlife. 113-240

Section 4.3.18.2 should discuss potential noise impacts to marine mammals from tanker operations. 113-241

On page 4.4-102 (in section 4.4.4.9 Terrestrial Vegetation and Wetlands) the DEIS once again refers to the "Very Unlikely" spill of 143,450 barrels (6 million gallons) of Alaska North Slope crude oil entering Port Valdez from a spill at the Alyeska Marine Terminal. The potential impact is minimized with the statement that "Up to two miles of shoreline might become heavily oiled, with small amounts of oil potentially reaching other shoreline areas. Oil reaching the shoreline might persist for extended periods of time and slow or reduce vegetation recovery." From experience with the Exxon Valdez oil spill, it is highly likely that if 6 million gallons of oil reaches Port Valdez, more than two miles of shoreline will be contaminated. During the EVOS event, after oil came ashore, it often washed off again and was driven by changing winds and currents to other previously uncontaminated beaches, and that same thing would occur in Port Valdez. Alyeska doesn't have enough equipment to contain or clean up a 2 million gallon spill, so the limited impacts predicted in the DEIS appear to be underestimated. 113-242

On page 4.4-103 (in section 4.4.10 Fish) the text briefly alludes to impacts caused by oil on prey for fish, however, no details or specifics are presented. Likewise, no references are given on fish toxicity to crude oil or dissolved components from crude oil. 113-243

3.18 Prince William Sound

On page 3.11-4 (in Section 3.11.3), reference is made to the fact that Prince William Sound was generally characterized as "pristine." However, the DEIS then goes on to state that numerous oil spills occurred in the region historically during World War II and as a result of the great Alaska earthquake of 1964. Oil and asphalt storage tanks in Valdez and Whittier ruptured, and their contents spilled into Prince William Sound. Thus, the authors explicitly state that Prince William Sound was contaminated with anthropogenic oil residues 25 years before the Exxon Valdez oil spill and that those residues were still present at the time of the spill (Carlson and Kvenvolden 1996). Other major sources of hydrocarbons cited in the DEIS include atmospheric fallout, runoff from onshore, and operation of boats for military, fishing, and tourism. The DEIS needs to compare these non-TAPS hydrocarbons with those from TAPS, and include a discussion of the bioavailability of the various sources of PAHs in Prince William Sound. 113-244

On page 3.11-5 the DEIS explicitly states that Prince William Sound has relatively high background sediment hydrocarbon concentrations; however, that statement is very misleading. The authors of the DEIS appear to have completely accepted the industry-supported argument by Boehm et al. (2001) that the oil seeps near Katalla and oil bearing shales are the major contributors to background hydrocarbon levels in Prince William Sound. In addition, after taking that 113-245

position, they then note that coal deposits also contribute measured hydrocarbons levels through erosion and deposition in Prince William Sound sediments (e.g., Short et al. 1999). Concentration ranges of sediment hydrocarbon levels are presented from both Boehm and Short. The DEIS authors then go on to state that "although there is general agreement on the typical concentrations of hydrocarbons in sediments in Prince William Sound, there is an ongoing debate in the scientific literature on which sources -- oil seeps and shales or coal -- is the main contributor to these hydrocarbon levels (for example, see Short et al. 1999; Boehm et al. 1998, 2001; Short and Heinz 1998; Bence et al. 2000; Hostettler et al. 2000)." [As noted earlier, the reference to Short and Heinz should actually be 1997, but all of those citations were missing from the reference section of the DEIS anyway!] The DEIS then states that "the latest paper by Boehm et al. (2001) presents compelling evidence that although significant amounts of hydrocarbons found in the sediment are derived from coal deposits, the majority of the hydrocarbons found in the Prince William Sound area come from eroding organic shales and, to a lesser extent, oil seeps." To accept at face value the industry position without examining published research running contrary to the conclusion cannot be justified. The viewpoint of industry appears to be that all forms of hydrocarbons are the same in their effect on biological systems. The bioavailability of a form of hydrocarbon is extremely important regarding its effects on living systems. The DEIS needs to consider and differentiate between the bioavailability of PAH introduced from liquid sources such as crude oil or refined petroleum products vs. solid-phase materials like coal and oil shale.

113-245 (Cont.)

On page 3.11-8, the DEIS states that trace levels of PAHs were measured in Prince William Sound following the EVOS to depths of 15 feet. The DEIS mischaracterizes the petroleum levels measured in the water column following EVOS as "trace." Total PAH levels of 1 to 10 µg/L were reported by both Exxon and NOAA, and these levels can cause death to sensitive species such as herring larvae and zooplankton in a few days of exposure under environmental conditions (Barron et al. 2002, Duesterloh et al. in press). This fact must be explicitly acknowledged in the DEIS.

113-246

Section 4.4.4.10.2 (beginning on page 4.4-105 deals with spill impacts from the Valdez Marine Terminal on Prince William Sound. It does not deal with spills resulting from tanker accidents (they are considered in yet another section, 4.7.4.4). On page 4.4-107 the DEIS states that in open waters (pelagic) fish have the ability to avoid a spill by going deeper in the water or further out to sea. Fish that lived closer to shore are at risk from oil that washes onto beaches or from consuming oil-contaminated prey. "In shallow waters, oil may also harm invertebrates used as food or sea grasses and kelp beds that are used for feeding, shelter, or nesting sites by many different fish species." This is the first mention

113-247

of invertebrates used as food for fish or marine intertidal habitats. Because the intertidal zone receives the brunt of any marine oil spill, it should be given more than two or three sentences in the DEIS. This section should cite the two excellent symposium volumes on the EVOS (Wells et al. 1995; Rice et al. 1996), where additional details on intertidal impacts from oil spills in Alaskan waters can be found. This page also contains a brief discussion of pink salmon research, but the presentation appears to be biased towards Exxon-funded studies showing no effects. Work by NOAA scientists and other researchers was either ignored or dismissed as being subject to biased sampling protocols. The DEIS should be expanded to cover a broader range of published literature on impacts to fish and intertidal organisms resulting from oil spills in cold northern-latitude environments. 113-247 (Cont.)

On page 4.4-108 (in section 4.4.11 Birds and Terrestrial Mammals) the DEIS has one sentence that states that 100,000-300,000 birds were killed as a result of the EVOS. After all the discussion of the habitats and species encountered and ranges presented elsewhere in the DEIS, this coverage is totally inadequate. There is, at least, one paragraph devoted to Kittlitz's murrelets, where the EVOS may have caused population-level impacts, but again this level of coverage is incomplete and tends to diminish the impacts measured after that major oil spill event. The DEIS summarizes the recovery of birds from the effects of the Exxon Valdez oil spill as follows: (1) fully recovered -- bald eagle; (2) recovering/recovery clearly underway -- black oystercatcher, common murre, and marbled murrelet; (3) not recovered -- common loon, cormorants (pelagic, red-faced, and double-crested), harlequin duck, and pigeon guillemot; and (4) unknown – Kittlitz's murrelets. In that the Exxon Valdez oil spill could be considered the archetype for "very unlikely" low-probability high-impact events, more coverage of impacts from that spill should be presented here and elsewhere throughout the DEIS. 113-248

3.19 Cumulative Effects

On page 4.7-13 (section 4.7.3.2 Proposals Considered but Excluded) the DEIS states that ANWR development was excluded because it was not currently feasible under existing regulations and laws. Specifically, ANWR has not reached a state of development where legislative approval, regulatory review, funding, or permitting has begun. Nevertheless, transport of ANWR production can easily be foreseen. Thus, it is reasonable for the DEIS to consider the environmental impact of increasing North Slope production or longer-term operation of TAPS or both. 113-249

On page 4.7-46 (in section 4.7.4.9.2 Tourism) the DEIS states that tourism is Alaska's second-largest industry with more than 1.4 million people traveling to Alaska in 1999 and spending about $1 billion in the state. While this overall 113-250

section is on cumulative effects of TAPS operations, there is no mention of the economic impacts or effects of oil spills on tourism. Likewise, on the same page (in section 4.7.4.9.3 Hunting, Fishing, and Trapping) the DEIS states that 565,000 sport fishing, hunting, and trapping licenses were sold in 2001, with 51 percent issued to nonresidents. No consideration is given to the potential impact to fishing, hunting, and trapping activities from an oil spill into any rivers or streams or Prince William Sound. Clearly, there were impacts to Alaska residents (tour guides, both charters, hunting and fishing lodges, etc.) after the Exxon Valdez oil spill, and the DEIS should have considered these in its analysis.

113-250 (Cont.)

113-251

On page 4.7-43 (in section 4.7.4.9.4 Commercial Fishing) the DEIS fails to mention the impacts from fisheries closures following the Exxon Valdez oil spill to operators in Prince William Sound and the Copper River District.

113-252

On page 4.7-53 (in section 4.7.4.10.4 Prince William Sound and North Slope Spill Scenarios) the DEIS states that there have been 180 documented crude oil spills into Prince William Sound in the last 25 years and 70 diesel fuel spills over the same period. On average, that is 10 spills per year. How to those historical frequencies compare to the hypothetical spill frequencies using the various scenarios presented in Table 4.7-6 (on page 4.7-54)? In that table there are only two small crude oil spills and two small diesel spills anticipated per year. The next highest spill frequency is one moderate (60 barrel) crude oil spill and one moderate (12 barrel) diesel spill every 33 years. After that, all the other spills and the table are in the "unlikely" (one every 33 to 1000 years) or "very unlikely" (one every 1000 to one million years) frequency ranges. These hypothetical spills used for the cumulative impact analysis clearly don't reconcile with the historical record over the first 25 years of TAPS operations. Why not?

113-253

Also, why wasn't any reference made to the Exxon Valdez oil spill (an actual spill, which did occur in the first 25 years of TAPS operations)? Likewise, why isn't its similarities or differences compared to the hypothetical scenarios described in Table 4.7.4-6? Almost all the hypothetical spill volumes in the table are less than the volume lost during the EVOS.

113-254

On page 4.7-70 (in section 4.7.6.6 Physical Marine Environment) the DEIS states that potential cumulative impacts would come from tankers traveling from the Valdez Marine Terminal through Prince William Sound to the Hinchinbrook Entrance. These transits would create noise and involve the risks of petroleum spills or other accidents. The DEIS then identifies other spill risks that are cumulative with the impacts from tanker traffic, including those from commercial fishing, recreational fishing/sightseeing tours, and commercial cargo operations in Port Valdez and Prince William Sound. With the exception of the risks from larger oil spills, the cumulative impacts on the physical marine

113-255

environment from the other activities were considered to be small and short-lived. "Small spills from all vessels are rapidly responded to and cleaned up by the spill response infrastructure supporting the oil transportation industry." In actual fact, not all small spills are cleaned up as rapidly as claimed. The diesel fuel lost from the sinking of the Vanguard near Campbell Bay on Glacier Island (Oil Spill Intelligence Report, Vol. XXIV, No. 31, 8/2/01) and the Windy Bay about 40 miles southwest of Port Valdez (Oil Spill Intelligence Report, Vol. XXIV, No. 32, 8/9/01) required several weeks each for response. Because of the prolonged nature of the releases and the water depths involved, response efforts had to be terminated before the fuel leaks from either vessel had stopped. Neither of these cases were mentioned as contributing to cumulative effects in the DEIS.

113-255 (Cont.)

On page 4.7-70, the DEIS states that the spill scenarios assume that from 50,000 to 290,000 barrels (2 to 12 million gallons) of Alaska North Slope crude could be released instantaneously at various locations in Port Valdez, the Valdez Narrows, and Prince William Sound, AND THAT IT WOULD SPREAD FOR SIX HOURS BEFORE RESPONSE AND CONTAINMENT! While the potential release volumes are realistic for tanker spill scenarios, the assumption that the oil would spread for only six hours before response and containment is totally unrealistic. Does Alyeska have sufficient personnel, boom, boats, and other equipment to contain a 12 million gallon spill? Based on computer-model predictions, the DEIS estimated that 90 percent of the oil after six hours would be in an almost circular ellipse that would extend about 4.5 miles in diameter from the release point. The text then acknowledges that the shape of the slick could be influenced by winds and currents, but in general, if the winds were slightly different than the model predicted, the estimated area that would encompass the oil-spill plume after six hours would be an ellipse about 10 miles in diameter. It was then further assumed (on page 4.7-71), "That at the six-hour point, the spill would be contained, and further spreading of the oil would stop." The DEIS acknowledges, that it is possible that some oil would escape the initial containment and could impact other areas in Port Valdez and Prince William Sound, but that the impacts outside the initial containment area would be small and localized.

113-256

The idea that a 10-mile diameter slick in the middle of PWS can be contained has not been demonstrated. Cleanup activities from the EVOS did not demonstrate this concept and, more recently, the cleanup activities on two small diesel spills from the Vanguard and the Windy Bay incidents did not demonstrate capability to fully contain a large spill. The DEIS needs to address whether APSC and SERVS could respond with all of their equipment to the middle of the Sound within six hours, and when they arrived whether it would be possible to corral a slick that size with their inventory of equipment.

A 4.5 miles diameter slick could require more than 14 miles of boom to contain it. A 10-mile diameter slick would require over 31 miles of boom. Deployment and control of that much boom in the open ocean is feasible only in the fairest of weather. The DEIS needs to consider the effects of foul weather in containing spilled oil in PWS. Also, it is unlikely that that much boom response equipment even exists in Port Valdez. 113-256 (Cont.)

The DEIS assumes that "once the oil was contained, removal actions would begin." This significantly understates the difficulty in keeping the spill oil contained and in actually skimming (30% recovery of spilled oil is viewed as excellent) the oil.. There is no discussion of cleanup (oil recovery equipment) efficiency, problems with water-in-oil emulsification (mousse formation) and its effect on skimmers, rope mops, and pumps, and no discussion of what to what to do with recovered oil (and water). 113-257

The DEIS then incorrectly states that Alaska North Slope crude oil does not significantly dissolved into the water column during the first 24 hours after a spill, but that portion which does dissolve could have minor local impacts. The DEIS assumes that dilution effects would limit the impacts away from the spill area. In actual fact, BTEX and lower molecular weight PAH components do dissolve into seawater (Payne et al. 1984, 1991a,b), and toxic concentrations approaching 1-10 µg/L were measured in the upper water column by both Exxon and government scientists after the Exxon Valdez oil spill (Barron et al. 2002, Duesterloh et al. in press). See the works of Wells et al. (1995) and Rice et al. (1996), and numerous papers published in 10 years of biannual International Oil Spill Conference proceedings for additional information on the limitations of response efforts and the short- and long-term effects and impacts of oil spilled into cold subarctic waters, and the Exxon Valdez oil spill, in particular. The assumptions in the DEIS on oil spill containment, cleanup efficacy, and on-water oil recovery appear to be without basis. 113-258

On page 4.7-72 the DEIS states that releases nearshore would heavily oil shorelines and waters immediately around the area would be affected. The DEIS acknowledges that the waters of Port Valdez and Prince William Sound in the immediate area of the spill could continue to be affected for longer times after the initial release; but, because of dilution and the existing background hydrocarbon concentrations, changes in seawater hydrocarbon concentrations would be minimal and localized. This is a gross simplification. Existing or "background" hydrocarbon concentrations are orders of magnitude below levels that would be introduced from the spills considered in the various scenarios, so that changes in seawater hydrocarbon concentrations would NOT be minimal and localized. In the EVOS, over 800 miles of shoreline was oiled from a similar volume of oil to 113-259

that described in the scenarios from the DEIS. How can that be considered localized? Impacts from dissolved components leaching from contaminated beaches are still being documented 12 years after the spill, a duration that hardly can be characterized as short-term (Short et al. 2002; Ballachey et al. 2000a,b; Monson et al. 2000; Esler et al. 2000; and Trust et al. 2000). 113-259 (Cont.)

On page 4.7-72 the DEIS states that mitigation for spills occurring during tanker transit from Port Valdez through Prince William Sound would include: (1) minimizing the time for response and the time required to contain the release, (2) deploying containment systems quickly, and (3) starting removal actions before weather or other adverse conditions could make containment difficult. This assumes that the spill occurs in a good weather. Most oil spills actually occur under or are driven by the worst of circumstances, when many factors (like storms, severe sea states, fog, or just darkness due to nightfall) are working together to complicate mitigation efforts. In addition, daylight hours are very short in the winter, so cleanup activities run on a 24 hour/day basis would require considerable nighttime operations. These factors need consideration in the DEIS. 113-260

On the same page (4.7-72), the DEIS claims that under the less than-30-year renewal alternative, the impacts from a spill would be the same as those discussed for the proposed action, and that under the no-action alternative there would still be risks from other marine traffic activities. Wouldn't the probability of a spill be lower with the less-than-30-year renewal period? Risks from "other marine traffic" are not of the same magnitude as tanker accidents, so they cannot be compared to or traded off against one another. 113-261

On page 4.7-72 (in section 4.7.6.7 Air Quality), the DEIS fails to consider HAPs released from ongoing operations at the Valdez Marine Terminal and the ballast water treatment facility, in particular. This treatment does not consider recent research on this issue. See the findings of Payne et al. (2002), which estimated that over 580 pounds of BTEX are released per day from the DAF units at the terminal. The DEIS also does not consider those occasions when Berth 3 (without any vapor recovery system) is used for loading when Berths 4 or 5 are occupied, shut down for maintenance, or damaged. Such an event was reported in the Oil Spill Intelligence Report (Vol. XXIV, No. 32, 8/9/01) when a loading arm accident caused the shut down of Berth 4 and Berth 5 was unavailable because of scheduled maintenance. The DEIS should consider HAPs emissions from maintenance loading operations at Berth 3. 113-262

On page 4.7-78 (in section 4.7.6.10.3 Waste Impacts Associated with Tanker Operations at the Valdez Marine Terminal) the DEIS directs the reader to Appendix C for detailed descriptions of wastes associated with TAPS operations. 113-263

Section C.5 (the appendix) does cover details regarding the BWTF, but none of the recent RCAC studies considering BWTF impacts to Port Valdez (Payne et al. 2001 and 2002; Salazar et al. 2002) were considered in any of those discussions. The main body of the DEIS and the attendant Appendix C should be rewritten to include the findings from recent research. 113-263 (Cont.)

On page 4.7-78 (still in section 4.7.6.10.3) the DEIS states that double-hull requirements will dramatically reduced but not completely eliminate the volume of ballast water treated in the BWTF. Relatively high flow rates are currently required to ensure that the biological treatment system remains active and viable (with proper concentrations of hydrocarbons, nutrients, oxygen, etc. to ensure survival of the bacterial population). If the ballast water flow decreases as much as is stated in the DEIS, how will the biological treatment system at the BWTF be modified to handle the lower ballast-water flow rates? 113-264

On page 4.7-79 (in section 4.7.6.10.4 Waste Impacts Associated with Natural Gas Pipelines) the DEIS states the proposed LNG plant would generate industrial wastewater related to plant operations as well as domestic and sanitary wastewater from support of the workforce. In addition LNG tankers visiting the LNG plant could generate bilge/ballast wastewater that would have to be treated and discharged under the auspices of an appropriate NPDES permit. If and when an LNG facility were to be located at Andersen Bay in Port Valdez, it would be imperative to more accurately assess the existing air and marine inputs from the Valdez Marine Terminal to correctly assess the cumulative impacts from the new facility. Current air and water column impacts from the Valdez Marine Terminal are underestimated for the reasons identified earlier. 113-265

On page 4.7-81 (section 4.7.6.11.2 Hazards to the Public) the DEIS states that the APSC is not required to report emissions under EPA's Toxics Release Inventory (TRI) because it has a standard industrial classification (SIC) of 4612 (transportation -- crude petroleum pipelines). Table 4.7-8 (page 4.7-82) lists six TRI-reported chemicals (benzene, ethylbenzene, formaldehyde, n-hexane, toluene, and xylene) that are emitted from TAPS facilities sources; however, the emissions from the terminal itself are not provided in the table. In actual fact, emissions from TAPS facilities exceed those from the TRI-reported sources elsewhere in the state, with the majority of emissions coming from the Valdez Marine Terminal. In addition to the Valdez Marine Terminal, the Petro Star refinery at Valdez is estimated to emit about 0.65 tons/year of benzene and 2 tons/year of the other VOCs. The DEIS then states that for some unknown reason, emissions from the Petro Star refinery at Valdez were not included in the reported TRI data for the state, but that although those quantities were dwarfed by the 43 tons/year of benzene and 69 tons/year of the other VOCs from the Valdez Marine Terminal, they should be factored in to the overall cumulative 113-266

impact to air quality in Valdez. We agree with this assessment that they should be included, but also caution that the figures presented in the DEIS for the Valdez Marine Terminal do not included emissions from the DAF units of the ballast water treatment facility. 113-267

On the same page, the DEIS states that a cancer risk of about 3×10^{-5} has been estimated for residents of Valdez from benzene inhalation from all sources. This cancer risk is based on monitoring and modeling studies that assumed that only 10 percent of the VOCs measured in Valdez came from the VMT (Goldstein et al. 1992). That estimate was based on the results of tracer gas studies completed in 1990-1991; however, the extent of those studies (duration, wind and weather conditions, number of tracer studies, etc.) were not described in any detail in the DEIS. What would the cancer risks be if those tracer studies turned out to be inaccurate? The DEIS should consider reasonable ranges, as determined from recent research, of HAPs emissions in assessing cancer risk. 113-268

Table 4.7-8 (on page 4.7-82) presents the toxics release inventory of reportable emissions for the state of Alaska in 1999. To put the stated benzene emissions from the Valdez Marine Terminal into a context that the public can understand, the DEIS should explicitly state that the annual benzene emissions from the terminal alone are 3.3 times higher than ALL the other sources over the entire state combined. Furthermore, as mentioned above, it is doubtful that the VMT estimates in the DEIS include the emissions from the DAF units and biological treatment tanks of the BWTF. Also, the DEIS should include a footnote to the table that states the fact that APSC and North Slope producer facilities do not have to report their emissions to the EPA Toxics Release Inventory (because of the SIC code exemption), and as a result, they are explicitly excluded from the table. Oil industry activities easily generate the highest sources of BTEX in the state, and to ignore their contributions to air pollution because of a SIC code exemption is inexcusable. Their omission from Table 4.7-8 gives an inaccurate picture of the true cumulative impacts to air quality from ongoing TAPS operations, and this should be corrected in the final EIS. 113-269

On page 4.7-84 (in a subsection entitled Air Emissions, Accidents, and Spills) the DEIS states that adverse impacts to the general public from accidental spills is small because it is unlikely that the spills would occur at the same time and in close proximity to the public. Second, existing regulations require timely cleanup of environmental media contaminated by spills, so the possibility of prolonged human exposure would be limited. That may be the case for terrestrial spill scenarios; however, spills on water are highly mobile, and in Port Valdez they can be driven into intertidal regimes closer to the city than just the terminal itself. Therefore, the impact distances considered in the DEIS should be assessed from where the spill might end up, and not just the point of origin (or a 113-270

limited distance from that point assuming 100 percent containment and cleanup). The DEIS needs to consider if regulations requiring timely cleanup can actually be met. It took over two years for most (but not all) of the oil to be cleanup after the EVOS, and even a small spill in Port Valdez could affect the citizens to a much greater extent than considered in the DEIS. Oil from the Eastern Lion oil spill was observed near the Solomon Gulch refinery, off Duck Flats, near Mineral Creek, and as far away as Anderson Bay (Jones 1994), and in that instance, only 200 barrels (8,400 gallons) of oil were lost and the spill response effort was initiated in less than two hours. In the event of a spill within Port Valdez, many of the citizens from Valdez would be involved in spill cleanup response. The DEIS appears to ignore exposures those responders as well as non-workers under those circumstances by simply stating that, "Protection of these workers is regulated under the Occupational Health and Safety Act and is beyond the scope of this assessment." 113-270 (Cont.)

On page 4.7-85 the DEIS states that PAHs were major contaminants of concern after the Exxon Valdez oil spill, but that there was an ongoing debate about the sources of PAHs in Prince William Sound, including past anthropogenic sources and a natural background signal from oil seeps, oil shale, and coal. While the DEIS does state that oil spills have the most potential for food chain impacts because of bioaccumulation in shellfish, it should expand the discussion to state that the differentiation between the PAH sources is of more than academic interest. The source of PAHs (crude oil vs. coal and oil shale) is important because those PAH originating in oil can leach into the water column and thereby become more bioavailable. PAHs in coal and oil shale do not bioaccumulate in marine organisms. 113-271

In this context, we would also like to stress that if Native Alaskans have higher incidence rates of stomach and digestive cancers (possibly associated with dietary PAH exposures from smoked foods), then an increase in PAH exposure from oil-contaminated subsistence resources may cause a greater cumulative impact in that population compared to others. This is an Environmental Justice issue that should be discussed in the DEIS? 113-272

On page 4.7-89 (in section 4.7.7.1.4 Prince William Sound) the DEIS states that loss of terrestrial vegetation and wetlands from continued TAPS operations would be minor. Why aren't the past and continuing wetlands vegetative impacts from the EVOS included in the cumulative impact analysis? 113-273

On page 4.7-90 (in section 4.7.7.2.1 Alteration and Loss of Habitat) the DEIS states that, "Another habitat alteration that may affect fish resources in Prince William Sound is the introduction of non-native organisms from the ballast water of oil tankers." Introduction of nonindigenous species may be a considerable problem with the newer double-hulled tanker fleet where segregated ballast water is (currently) dumped directly into the waters of Prince William Sound and Port 113-274

Valdez. While the DEIS correctly identifies this as a potentially serious cumulative impact, the document should also at least consider possible alternatives or mitigative actions to counteract this influx. Because of the difficulty in treating the large water volumes involved, just stating that "ballast water treatment would minimize this impact" does not address the issue. Should all segregated ballast water be treated? If so, how? Chemicals, ozone, filtration, pH adjustments, etc. will all potentially affect the receiving waters of Port Valdez, and potential options should be assessed in the DEIS. 113-274 (Cont.)

On page 4.79-93 (in section 4.7.7.2.4 Effects of Oil, Fuel, and Chemical Spills on Fish) the DEIS states that direct mortality of fish due to oil spills has seldom been documented, although impacts on fish in natural environments have been inferred on the basis of laboratory studies. The DEIS then acknowledges that the Exxon Valdez oil spill probably had some impacts on fish, including pink salmon and herring but, it is also stated in the DEIS that there is no consensus on the extent and duration of the impacts on those species. The DEIS then concludes by stating that by 1995 it appeared that fish populations and habitats had largely recovered. This treatment ignores the ongoing impact to the herring fisheries in Prince William Sound, which still have not recovered. Likewise, the impacts of oiled intertidal habitats are still causing problems with harlequin ducks and sea otters in selected areas of Prince William Sound (Short et al. 2002; Ballachey et al. 2000a,b; Monson et al. 2000; Esler et al. 2000; and Trust et al. 2000). The DEIS should not simply ignore the numerous studies that have been completed or are still underway with the blanket statement that "by 1995 fish populations and habitats had largely recovered." 113-275

On page 4.7-102 (in section 4.7.7.4 Threatened, Endangered, and Protected Species) the DEIS as states that past and present activities that contribute to the cumulative impacts are part of the existing baseline and are described elsewhere in section 3.22. Only past activities or events whose impacts still influence the status of listed or protected species are considered in this section. Also, only petroleum spills in the "anticipated" or "likely" categories are considered in the cumulative impact and evaluation. Large spills in the "unlikely" or "very unlikely" categories are not included in the discussion. Any cumulative assessment of past, present, and future environmental impacts will be incomplete if the impacts of the largest oil spill in U.S. history (i.e., the EVOS) are ignored. 113-276

Table 4.7-9 (on page 4.7-103) states that the "existing baseline incorporates the effects of current ongoing activities and residual past effects (i.e., effects of past activities that continue to influence baseline conditions)." The data Table 4.7-11 appear to indicate that EVOS is now a part of the "baseline" and that very large spills are "unlikely" or "very unlikely" to occur having "impacts ranging from no 113-277

effect to large effect depending on the location and extent of the area affected." The DEIS should address the issue, and place a separate table in this section that specifically delineates the cumulative impacts to threatened, endangered, and protected species that can be attributable to EVOS.

On page 4.7-107, the DEIS states that "anticipated" or "likely" spills are expected to be relatively small, and if existing oil spill contingency plans for response and cleanup are followed, any impacts from the spills should be short in duration. "Large spills (not included in Table 4.7-11) that are considered "unlikely" or "very unlikely" could contribute substantially to the cumulative impacts on listed and protected species in Prince William Sound." "The impacts of such a spill would depend on many factors including location, weather, time of year, and area affected." Large spills should be included in Table 4.7-11, even the one that occurred in the first 25 years of TAPS operations. 113-277 (Cont.)

On page 4.7-110 (in section 4.7.8.1 Subsistence) the DEIS states that the greatest potential impact to Prince William Sound would be caused by disruption of subsistence activities due to a tanker accident. They then qualify that statement, however, by alluding to lowered spill probabilities, the improved tanker Escort systems, and spill containment capabilities that should limit impacts. In addition the DEIS downplays the impact by stating that the size of Prince William Sound should allow adequate avoidance of spill areas in subsistence activities. Stating that people can go fish someplace else appears to be an unreasonable way of addressing this issue. The DEIS should also discuss the problems associated with the perceived impact of potentially tainted or unusable subsistence foods on Native activities. 113-278 113-279

In Table 4.7-12 Summary of Anticipated Cumulative Impacts under the Proposed Action (on page 4.7-1 26) the DEIS states that impacts to the public from VOCs are not anticipated to be large cumulative impacts unless a new large source is located near the Valdez Marine Terminal. Also, possible negative impacts to the public might accompany spills accumulating from different actions, however, the impacts would be localized, and it is extremely improbable that spills associated with different activities would occur near human settlements. An oil spill doesn't need to occur near human settlements to have a human health impact. The DEIS should place less emphasis on the point of origin of a spill and consider the fact that containment (as assumed in most of the scenarios) is unlikely to be effective, and that winds and currents can redistribute the oil such that it can strand in intertidal zones near potentially impacted populations. Also the DEIS should not simply dismiss the exposure of citizen cleanup workers with the statement that they should be covered under OSHA. There are numerous reports on human health impacts from EVOS, and they should be given greater attention in the DEIS. 113-280

Finally, the long-term impacts from the Exxon Valdez oil spill should have been given greater consideration in the entire section on cumulative effects of past, present, and future activities. A lot has been learned in the last 13 years of about the effects of oil spills in cold regions, and the impacts of a major oil spill in Prince William Sound in particular. The DEIS should use this information in determining cumulative impact. 113-281

3.20 Impact to Subsistence Activities

Along with numerous other stakeholders, the Prince William Sound Regional Citizens' Advisory Council represents the Natives from the villages and communities surrounding Prince William Sound. During the past several weeks of this DEIS review period, we have received a number of comments expressing concerns about the coverage of subsistence activities in the DEIS. Therefore, before continuing with our page-by-page analysis of the document, we include an e-mail received from Patience Anderson Faulkner, a Eyak Native from the Cordova area and Board Member of the PWS RCAC. This e-mail conveys the importance of subsistence activities to Native community structure and eloquently sets the tone for the page-specific comments that follow.

> Tuesday, August 13, 2002
>
> Tom,
>
> First: in 2000 I was the person who conducted the demographic data for the Native Village of Eyak and had been collecting it since 1976. There were verifiably over 480 Alaska Native residents in the community at that time; very close to 20%. I wrote the information for a HUD grant. I had just completed the survey for the EVOS subsistence law suit.
>
> Second: When folks participate in the subsistence activities for whatever food substance they are harvesting, they do not parade the food on the hood of their truck, nor carry it out in paper or plastic. They go from the point of harvest to home. The Sound is their grocery store.
>
> Third: Depending on the availability of the food, it is always shared within the community and then throughout the Chugach Region (including Anchorage, etc.) with the relatives. No matter how short it is for us who live in one particular place, we share with others.
>
> Fourth: Our subsistence gathering is primary to our lives. We subsidize it with money from jobs, investments by our corporations. It comes first. It can be a difficult task to be employed and participate in a gathering of resources, but many take time from their work to do so - our vacations are spent harvesting the subsistence foods. We also process foods into the night so that we can have the foods throughout the year. A review of the number of high school drop outs and limited number of

college graduates is indicative of how the stepping out from job oriented goals are to living with the food we have always lived with - food that greatly nourishes our bodies and souls. Look at our rate of unemployment and employable skills.

Fifth: While there are surveys by credible folks on how much subsistence foods are gathered, the number is under counted. Reason: when a surveyor asks about the foods we eat, we may respond with: "My favorite is faces and lips!" When the surveyor reacts in a manner that is not positive (we can read body language, too!); the interview continues, but is toned down. Faces and lips are fish head chowder and lipuska (fried bread).

Sixth: Many family members have a history of discrimination and have a difficulty of sharing intimate details of their daily lives. What did you eat for dinner last night? And the night before?

Seventh: Subsistence is also a process to perpetuate the cultural activities. A youth learns to share his/her harvest with his/her Elders with the first time catch/gathering. This provides an opportunity to instill a valued place in the community. The Elders have an opportunity to share their wisdom and the youth begins the long road in the rites of passage. With limited subsistence foods, the focus diminishes. The Elders die and the youth becomes distracted with neon lights of the greater society.

Good comments on RCAC's position. Hope this helps.

Patience Andersen Faulkner

In Section 3.23.5 Subsistence, only two paragraphs are devoted to the subject of subsistence fishing and hunting. While the subsistence harvest of food only represents two percent of the fish and game harvested annually in Alaska, that harvest contains about 35 percent of the caloric requirements of the rural population. In some areas, subsistence products provide more than 50 percent of the daily caloric requirement. After clearly identifying the importance of subsistence hunting and fishing to Native populations, the DEIS then attempts to equate subsistence activities to dollar value by applying three dollar and five dollar per pound replacement values. With this approach the replacement value of subsistence products is estimated to be between $160 million and $267 million. This approach does not consider the cultural importance of these activities toward community structure and maintaining the Native heritage as well as the importance of these traditional foods to Native health. There is no mention of the impact of TAPS and ongoing oil and gas resource development on subsistence activities, and nothing is said about the disruption to subsistence activities and community structure in the villages surrounding Prince William Sound after the Exxon Valdez oil spill. 113-282

Page 3.23-21 notes that over the period from 1996-2001, of the total TAPS contracting expenditures of $1.9 billion, $0.759 billion (39 percent) was awarded to Alaska Native corporations. It appears that some type of equivalence between a cash economy and a subsistence economy based strictly upon cash is being made. Again, this ignores the cultural aspects of subsistence economies. 113-283

In Section 3.24, Subsistence, the DEIS deals exclusively with subsistence issues and their importance to the Native communities. In 1999, there were over 123,000 persons eligible (on the basis of the Federal rural residency requirement) for subsistence activities. The most important subsistence food by weight is fish (60 percent), followed by land mammals (20 percent), marine mammals (14 percent), birds (two percent), shellfish (two percent), and plants (two percent). Commercial fishing far outstrips subsistence and recreational harvests accounting for about 97 percent of total fish and game harvested during the 1990s, compared with two percent taken for subsistence by rural residents and one percent taken by recreational hunting and fishing.

In Section 3.24.1.4, Chenega Bay, the DEIS indicates that nearly 80 percent of the population in Chenega Bay is involved in fishing for subsistence purposes (1997). Subsistence collections before Exxon Valdez oil spill had declined (42 percent) from levels in the 1960s. Continuing declines in subsistence activities are occurring although they are not quantified in the DEIS. Reasons for the continued decline in subsistence activities include: persistent effects (contamination) from the Exxon Valdez oil spill; shortages of seals, sea lions, clams, octopus and some ducks; certain regulations affecting subsistence harvest of salmon; and competition for deer by non-local or recreational hunters. There is no discussion in the DEIS of impacts immediately after the Exxon Valdez oil spill in 1989 through 1993. 113-284

In Section 3.24.1.7, Cordova, the DEIS states that the population of Cordova was 2,454 in 2000, 10.4 percent of whom were Native. Wage labor dominates the economy of Cordova, with most employment associated with commercial fishing or fish processing. Nearly 80 percent of the households in Cordova fished for subsistence in 1987 with another 47 percent hunting large land mammals. The DEIS states that subsistence concerns identified by local residents included both contamination and environmental damage associated with the Exxon Valdez oil spill in 1989; however, no additional details are provided (see Fall 1999 for additional details). There was no mention of the impact to the village of Cordova due to commercial fisheries closures following the Exxon Valdez oil spill or the lack of recovery of herring since 1993. 113-285

In Section 3.24.1.16, Nanwalek, the DEIS states that the population of Nanwalek in 2000 was 177, nearly 90 percent of whom were Native. Subsistence concerns

identified by the local residents during the late 1980s and early 1990s included persistent contamination problems resulting from the Exxon Valdez oil spill; low populations of seals, sea lions, some waterfowl, sockeye salmon, and a number of marine invertebrates; and competition with nonresidents for black bear, moose, goats, salmon, and halibut. Data collected after the Exxon Valdez oil spill indicated substantial declines in subsistence activities (Fall 1999).

In Section 3.24.1.19, Port Graham, the DEIS states that the settlement of Port Graham contained 171 people in 2000, nearly 85 percent of whom were Native. The economy of Port Graham is mixed: wage employment is available in the nearby cannery and hatchery, and 15 residents held commercial fishing licenses in 2000. Subsistence plays an important role in the village economy, and fishing is the most dominant activity, contributing 220 pounds per capita in 1997. More than 90 percent of the households were involved with subsistence fishing. Subsistence concerns included persistent problems due to contamination from the Exxon Valdez oil spill; habitat destruction from logging; low populations of seals, sea lions, some waterfowl, sockeye salmon, and a number of marine invertebrates; and competition with nonresidents for black bear, moose, goats, salmon, and halibut. Subsistence activities declined for several years following the 1989 Exxon Valdez oil spill (Fall 1999).

In Section 3.24.1.23, Tatitlek, the DEIS notes that Tatitlek is located approximately 17 miles southwest of the Valdez Marine Terminal. The 2000 census recorded 107 people in Tatitlek, with more than 84 percent Native. The village economy relies on both cash income and subsistence. Seasonal wage employment is available from fish processing and oyster farming, and in 2000, three residents held commercial fishing licenses. However, subsistence activities continue to provide most of the food items and other resources used by the community. As with other coastal communities, a large variety of subsistence resources are exploited, including: marine mammals and invertebrates, fish, large and small land mammals, and birds. Fifty percent or more households participated in harvesting from each of the main resource categories except small land mammals. The subsistence harvest area for Tatitlek includes several parts of Prince William Sound in the immediate vicinity of the Valdez Marine Terminal. Subsistence concerns included persistent problems resulting from the Exxon Valdez oil spill; low populations of seals, sea lions, some waterfowl, herring, sockeye salmon, a number of marine invertebrates, and deer; and competition for salmon and herring roe with nonresidents or commercial operations. Studies focusing on subsistence changes following the Exxon Valdez oil spill indicated declines did occur for several years following the 1989 event (Fall 1999).

The Port of Valdez is not considered in section 3.24.1 covering subsistence activities. 113-286

The final section on subsistence covers the importance of improved transportation technology (Section 3.24). In that various alternatives considered in the DEIS might effect access to traditional subsistence areas, the topic of access is given additional emphasis in terms of understanding modern subsistence activities in Alaska. The issue of the necessity for cash to purchase some machines, boats with engines, rifles, etc. and maintenance of these items is also covered. "Just as the introduction of dog sleds in the Alaska of the past required increased harvest of fish for dog food, modern technology requires sufficient cash to acquire and maintain modern subsistence technology."

Section 3.24.3 Sport Harvests vs. Subsistence notes increased access via the Dalton Highway and access roads to parts of northern and interior Alaska have been seen by many Natives as a significant impact to subsistence activities over the past two to three decades. The data in Figure 3.24-2 clearly show that harvest totals for numerous species have increased over time in the vicinity of the TAPS, and this most likely results from improved access by both Native and non-Native hunters.

During public scoping meetings several individuals pointed to reduced access to caribou, primarily because of changing or disrupted migration patterns, as being important TAPS-related impacts on subsistence (Section 3.24). The DEIS claims that the data do not support changes in migration patterns that can be directly attributed to the TAPS (page 3.24-27). Studies of caribou behavior indicate that movements vary widely, and it is difficult to attribute changes in movement between years or over long periods of time to single causes (e.g., ADF&G 1986b). Many people feel that disruption of the lead animals early in the migration process has major impacts on herd movements, although there is no evidence that the TAPS ROW or Dalton Highway have had adverse effects on herd movement at the population level (TAPS Owners 2001a). Although data indicate that the size of certain caribou herds has increased considerably in recent decades, the issue of shifting location (and hence geographic availability to various subsistence hunters) remains unresolved (page 3.24-27).

Page 3.24-28 concludes by stating "overall, as was the case with terrestrial mammals, available evidence of subsistence fishing -- notable changes in subsistence versus sport fishing over time and possible TAPS impacts -- largely are inconclusive." It is believed, however, that monitoring and subsequent establishment of regulations to manage fisheries along the TAPS ROW largely have been successful.

Section 3.25 of the DEIS discusses Sociocultural Systems and Table 3.25-1 summarize directly affected villages in the vicinity of the TAPS (on page 3.25-6) using a breakout of sociocultural groups. Table 3.25-2 presents selected characteristics of regional sociocultural systems. Today, the Chugach Alutiiq in the vicinity of the TAPS reside primarily in Cordova. Other communities containing Chugach included Chenega and Tatitlek. All three communities have been identified as possibly experiencing TAPS-related impacts, as have other Alutiiq (Unegkurmiut) villages of Nanwalek and Port Graham on the Kenai Peninsula (BLM 2001a; see also Davis 1984). Many Chugach Alutiiq today are living primarily through wage labor, working for businesses in Cordova and other communities or pursuing commercial fishing. However, the importance of Chugach Native heritage persists, primarily in the continued pursuit of subsistence to supplement a wage-based economy and the frequent reference to kinship in social interactions. The impact of the Exxon Valdez oil spill on this cultural heritage is not adequately covered in the DEIS. 113-287

On page 4.4-94 (in section 4.4.4.7.4 Impacts from Foodchain Exposures Resulting from Spills to Water) the DEIS concludes that after the Exxon Valdez oil spill, subsistence foodchain exposures were as follows: the PAH levels were low in finfish and marine mammals (blubber). Smoking the fish significantly increased PAH levels making the smoked fish more toxic than non-smoked EVOS-exposed fish. The upper bound lifetime cancer risk for ingesting contaminated shellfish was 2×10^{-6} versus 2×10^{-4} for ingestion of smoked salmon. In a reassessment of foodchain risks associated primarily with contaminated shellfish two data sets were used from NOAA analyses completed in 1989 and 1991. Mussel data from Windy Bay in July 1989 showed the highest levels from among the 13 subsistence use areas investigated as a result of the Exxon Valdez oil spill. The second data set evaluated in the DEIS was collected from Windy Bay in April 1991. The sum of the 15 PAHs examined in the 1989 data set was 160 ppb; the sum of the PAHs for the 1991 data set was 2 ppb (and many of the individual PAH were below the method detection limit). Clearly the mussels had undergone significant depuration over the two-year period after the initial exposure from the Exxon Valdez oil spill. By way of comparison, the TPAH attributed to the effluent from the ballast water treatment facility measured in mussels as part of the PWS RCAC LTEMP in Port Valdez ranged from 87-500 ppb (excluding samples after the Eastern Lion and BWTF oil spills) at the Valdez Marine Terminal and from 80-900 ppb at Gold Creek, 6 km across the Port. From these data, it is obvious that the "background" levels within Port Valdez are higher than the post-EVOS levels of subsistence concern measured at Windy Bay. Therefore, it is not appropriate to simply dismiss the BWTF discharges as being within NPDES limits as is done throughout the DEIS. 113-288

To put all these values into the context of a human health perspective, the smoked salmon analyzed as part of the NOAA study had average total carcinogenic PAHs in edible tissue of 8,700 ppb (page 4.4-98). Caution must be exercised in comparing PAH contamination from smoking foods to PAH from exposure to crude oil. Cancer risk calculations include only 15 PAH whereas crude oil contains over 100 different PAH compounds (most selected-ion-monitoring GC/MS methods used in state-of-the-art chemistry laboratories today focus on 43-45 different components). The toxicological response to exposure to these more complex mixtures is more difficult to predict than from a single chemical exposure. As noted on page 4.4-98 of the DEIS, the threefold increase in stomach cancer in Alaska Natives might be associated with frequent ingestion of smoked foods. With this increased rate of stomach cancer, however, any additional exposure to PAHs should be avoided whenever possible. 113-288 (Cont.)

On page 4.4-122 (in Section 4.4.4.14 Subsistence) the impacts of oil spills in Prince William Sound from TAPS activities are discussed. The bulk of the discussion centers around the "very unlikely" rupture of a crude oil storage tank that allows more than 143,000 barrels (6 million gallons) of oil to reach the waters of Port Valdez at the Valdez Marine Terminal. The DEIS states that subsistence resources -- fish, invertebrate marine species, seabirds and shorebirds, and possibly certain marine mammals (e.g., sea otters) can be adversely affected by such a spill. However, the DEIS adds that "given the limited spatial dispersal of oil under this scenario, the area affected would be small relative to the entire Prince William Sound and its coastline." The inadequacy of the spill scenario and the drastic underestimation of the affected shoreline have been discussed previously in this review and they will not be considered again at this point. It is important to add, however, that even if the shoreline contamination were kept to a minimum (which is unlikely) the perception that subsistence resources are contaminated or unusable may be more important than the actual level of contamination present. 113-289

With regard to the impacts of ongoing TAPS activities on subsistence resources, it should be pointed out that PAH contamination from BWTF discharges in intertidal mussels in Port Valdez appears to be greater than the levels measured in 1989 in Windy Bay that caused concern following the EVOS. As such, there is a non-spill impact to subsistence activities from ongoing TAPS operations that has not been considered in the DEIS. 113-290

3.21 Waste Disposal

On page 4.3-28 the DEIS states that incineration of domestic and nonhazardous industrial solid waste at the pump stations and the Valdez Marine Terminal have played a pivotal role in solid waste management by providing for substantial volume reductions to wastes requiring disposal. Solid waste and ash from the 113-291

incineration process is landfilled. Alyeska is a minor contributor to most landfills, and Glennallen and Valdez receive only 22 percent and 14 percent of their total waste from Alyeska, respectively. The DEIS should state what provisions are implemented to ensure that this incineration process does not introduce hazardous air pollutants to the atmosphere near Valdez. Is the ash tested for leachablilty of hazardous constituents before disposal at either the Glennallen or Valdez landfill? 113-291 (Cont.)

On page 4.3-34 (section 4.3.12.6 Special Wastes) the DEIS implies that small quantities of medical wastes are currently incinerated at VMT. What provisions are implemented to ensure that complete destruction of those wastes occurs and that the ash is completely sterilized before being disposed of at the Valdez landfill? 113-292

On page 3.4-35 the DEIS states that spill contaminated soil is subject to thermal treatment as per ADEC guidelines. Furthermore, it adds that no additional stockpiles of contaminated spill debris are expected to be necessary with the proposed action. Given the large quantities of spill debris that are generated during and oil spill cleanup, and the 1,562 tons of spill debris currently stockpiled at the Valdez Marine Terminal, the DEIS should devote more than one paragraph to the treatment and disposal of spill contaminated materials. 113-293

3.22 Economic Issues

On page 4.4-119 (in section 4.4 24.13.2 Recreation and Tourism) the DEIS should quantify the impact on lost revenues from declines in tourist and recreational fishing activities in Prince William Sound as a result of the Exxon Valdez oil spill. 113-294

3.23 Sociocultural and Environmental Justice Issues

On page 4.4-1 23 (in section 4.4.4.15 Sociocultural Resources) the DEIS states that even if a "very unlikely" terrestrial spill devastated a piece of ground as large as 84 acres and had large negative impacts on local bird or terrestrial mammal populations, that such an event would not directly affect any Alaska Native villages or rural non-Native communities considered in the DEIS. Specifically, "If a spill affected land relied upon by some or all members of the Alaska Native or non Native community, those individuals could shift their activities to avoid the spill area and focus on terrestrial resources elsewhere without undue difficulty." That sounds a little bit like Marie Antoinette saying, "Let them eat cake." Likewise, the DEIS goes on to state, "The consequences of such an occurrence would not be expected to translate into impacts on sociocultural systems (changing economic orientation, kinship patterns, authority structures, etc.)." That was certainly not the case after EVOS (albeit a marine rather than land-based spill that affected much more than 84 acres), because the authority structures in many Native communities were turned upside down. Not 113-295 113-296

surprisingly, many elders did not have any experience in oil spill response, oil toxicity, or its anticipated persistence, and as a result, their position in the community was affected. They were no longer looked to for knowledge, leadership, and guidance. None of these or other issues were addressed in the DEIS.

113-296 (Cont.)

On page 4.4-1 25 (in section 4.4.4.15 Sociocultural Resources) the DEIS again assumes that because only a relatively small area would be affected (even from the 143,000 barrel spill of crude oil at the Valdez Marine Terminal) that the spill would not have a large impact on sociocultural systems in the Prince William Sound area because of the "ability of peoples in the region relying on subsistence fishing, hunting and gathering, and commercial fishing to avoid the relatively confined impact area." At least in this instance the DEIS acknowledges that perceptions of tainted fish impacts to commercial and subsistence fisheries closures are in some cases equally or more important than the actual levels of contamination, and that in the future, these fears could possibly be exacerbated by prior experience with the Exxon Valdez oil spill. However, the DEIS then goes on to state that based on experience from EVOS, sociocultural impacts from another large "very unlikely" oil spill may not be large or last a long time despite the large negative effect on local economies. That statement is hard to accept at face value, and additional input from the Natives in Tatitlek, Nanwalek, or Chenega Bay should be presented in the DEIS.

113-297

On page 4.4-143 (in section 4.4.4.19 Environmental Justice) the DEIS states that there might be a short-term positive impact from an oil spill in the form of employment of local people on cleanup crews. Such activities could provide wage employment in areas where jobs paying cash are often hard to find. If individuals living close to the spill are hired, the relatively large percentage of low-income and minority residents near the TAPS, coupled with agreements for employment between Alyeska and selected Alaska Native villages, suggests that environmental justice populations would be among the beneficiaries of spill-related employment. The DEIS does not point out, however, that this employment opportunity might be offset by increased Native exposure to toxic hydrocarbons including BTEX and PAHs through both inhalation and dermal contact. Given the already cited increase in some cancer rates in Native vs. White populations, that may not be an acceptable tradeoff.

113-298

4 Conclusions and recommendations

4.1 Citizen participation in resolution of oil transportation issues affecting them

Comment Period of 45 Days is inadequate. A comment period this short, in effect, denies interested citizens the opportunity to participate in the public input process. The purpose of a public comment period is to give citizens the opportunity to provide information that might affect the decision-making processes. Many of the decisions that could benefit from citizen input already appear to have been made. We note the citizens' input process is pro forma in all respects and also is largely lacking in substance. 113-299

4.2 Adequacy of DEIS to 30 year renewal period

The Executive Summary notes that an additional NEPA review would be necessary to dismantle the existing TAPS. In order for all options to be properly considered the impacts of terminating the pipeline operations and dismantling the TAPS should also be addressed in greater detail in the current DEIS. The fact that this option was given less consideration reflects the bias of the DEIS authors in preparing the document. The DEIS should be revised to include a rigorous evaluation of the non-renewal alternative. 113-300

There is inadequate discussion of biological impacts from non-Exxon Valdez spills during the past approximately 30 years of routine TAPS operations. Figure 4.4-1 (page 4.4-11) summarizes information for the largest historical spills for pipeline and Valdez Marine Terminal operations over the past approximately 30 years of routine TAPS operations. Some of the latter spills are associated with large release volumes (e.g., 672,000 gallons/16,000 barrels from the pipeline near Steele Creek at MP-474 in February 1978). No discussion of potential biological impacts for these historical spills is provided in Section 4.4.1.1. A brief discussion is presented in Section 3.3.3 for the status of existing contaminated sites related to construction and operational activities of the TAPS, although the latter does not address any associated biological impacts that may have occurred at the sites. For perspective, information for biological impacts of non-Exxon Valdez spills during the past approximately 30 years of routine TAPS operations would be helpful to include in the DEIS. 113-301

Page 4.7-94 states that cumulative impacts on fish of the 30 year and less than 30 year renewal period would be similar. This statement is unclear because the probability of an oil spill likely increases with increased operating time of TAPS. Thus a reduction in the renewal period should proportionally reduce potential impacts. This statement also appears on Page 4.7-101 and should be clarified. 113-302

PWS RCAC recommends a detailed review of operations and system integrity be performed every 5 years during any renewal period to ensure the assumptions used in the DEIS are correct, including reduction in oil throughput, a transition to a 100% double hull tanker fleet, and no increase in leaks and ecological impacts due to aging of line pipe or catastrophic events (e.g., earthquakes, terrorism). 113-303

4.3 Equivalence of regulatory compliance and environmental impact.

Regulatory compliance has been cited in the DEIS as an indication of lack of environmental impact. These two concepts are not equivalent. It is important to know the environmental impact associated with an operation regardless of whether it is in compliance with existing rules and regulations. In fact, new rules and regulations originate from situations wherein an adverse environmental impact is being caused by a process that is in full compliance with existing rules and regulations. The DEIS should acknowledge the difference between regulatory compliance and environmental impact and should not cite regulatory compliance as evidence of benign environmental impact, especially when evidence to the contrary exists. 113-304

4.4 Reliability Centered Maintenance

The Reliability Centered Maintenance (RCM) paradigm is cited in the DEIS as assuring that TAPS is now well maintained and will be properly maintained throughout the lifetime of any renewal. The RCM process is formal and structured. In general, it is a very useful methodology by which to accomplish maintenance and, in concept, is appropriate for TAPS. However, it appears that the implementation of the RCM for TAPS is flawed because: (1) there is no evidence that the RCM exercises are covering all of TAPS; (2) the decision making process by which TAPS components, facilities, and subsystems are subjected to an RCM analysis has not been formalized and appears to be ad hoc; and (3) action plans regarding implementation of the maintenance activities indicated by the RCM processes have varying and undocumented levels of implementation. Consequently, one cannot use the RCM process as currently being practiced to verify that the TAPS is adequately maintained. 113-305

Consider the problems cited regarding the gravity separation process of the Ballast Water Treatment facility. Several issues are of interest: (1) the problem has been on-going for at least 2 years; (2) an RCM analysis appears to exist for the gravity separation process; (3) the draft report for reasons unknown was not available when PWS RCAC examined the other reports; and (4) the action plan resulting from the RCM for the gravity separation process appears to not have been implemented.

Section 4.1.1.7 Reliability-Centered Maintenance -- JPO Oversight into the Future. The goal of Reliability Centered Maintenance (RCM) is to identify potential maintenance problems and prevent them by focusing maintenance efforts on the systems and subsystems associated with the highest risks and biggest consequences. Unfortunately, as implemented, this approach leaves smaller maintenance issues unattended, and they can cumulatively combine to also cause major problems. See Green Report (Green 2002) for additional details. 113-305 (Cont.)

The DEIS should not be citing the RCM activities as evidence of benign environmental impact when there is evidence that indicates that the level of implementation is substantially incomplete and where there is no evidence to indicate that the RCM program will be used throughout any renewal period.

4.5 Corrosion Control.

Section 4.1.2.3, Corrosion Control Features, briefly describes cathodic protection technologies employed to mitigate corrosion of the buried pipeline. Both impressed-current and sacrificial galvanic anode technologies are used. The descriptions in the DEIS are relatively vague, however, and will not be easily understood by the average citizen as intended by NEPA. In addition, the Corrosion Control inset on page 4.1-11 contains an inaccuracy. It states that, "The metal acts as a cathode (a source of electrons) in a galvanic cell." In actual fact, reduction occurs at the cathode, and it is the anode in a galvanic cell that is in the source of electrons. That is where oxidation occurs (Mahan, 1965). Later in the same inset, the DEIS correctly indicates that sacrificial magnesium anodes connected to the pipe are oxidized (give up electrons) more readily than the iron in the pipe. This type of inconsistency in the explanation is confusing, and it is an example of how inaccuracies throughout the document bring its credibility into question. Also, the DEIS does not readily explain how "corrosion coupons" (made up of the same metal as the pipeline and buried in the same trench but not "bonded" to the pipeline) inhibit pipeline corrosion. Ultimately, there is additional discussion of the use of corrosion coupons in a footnote on the bottom page 4.1-18, but this is just another example of how unwieldy the DEIS is and how difficult it is to ferret out information on any particular topic. 113-306

4.6 Recommendations for renewal of TAPS ROW Grant and Lease

Assumptions cited or implied in DEIS and Commissioners Determination should be included as conditions of renewal and their validity needs verification every 5 years. If the assumptions are found not to be valid, re-evaluation of potential impact is to be re-done. 113-307

The DEIS should also consider cumulative and potential impact for off-normal operations such as those that have been observed in the operation of the Ballast Water Treatment Facility and in the maintenance of the fire protection assets. 113-308

Determine the present state of TAPS and ensure that its condition has been maintained to a level that assures that all of the assumptions underlying the probable impact assessments in the DEIS remain valid for 5 years.

113-309

Every 5 years the condition of TAPS shall be re-evaluated with regard to its condition and level of maintenance as a condition for continued operations.

5 Glossary

ADEC – Alaska Department of Environmental Conservation
AEMP – Alyeska Environmental Monitoring Program
AHC – aliphatic hydrocarbons
Alyeska – Alyeska Pipeline Service Company
AMT – Alyeska Marine Terminal
APCD – Air Pollution Control District
APSC – Alyeska Pipeline Service Company
ANWR – Arctic National Wildlife Refuge
BLM – Bureau of Land Management
BOD – biological oxygen demand
BTEX – benzene, toluene, ethyl-benzene, and xylene(s)
BWTF – Ballast Water Treatment Facility
D&D – decommissioning and dismantlement
DAF – dissolved air filtration
DEIS – Draft environmental impact statement
DMR – discharge monitoring report
EIS – Environmental impact statement
EVOS – Exxon Valdez Oil Spill
FDS – Fire Dynamics Simulator
FID GC – flame ionization detector gas chromatography
GC/MS – gas chromatography/mass spectrometry
GOC – Gold Creek sampling site
HAP – hazardous air pollutants
IDLH – Immediately Dangerous to Life and Health
K_{ow} – octanol/water partition coefficient
PWS RCAC LTEMP – Long Term Environmental Monitoring Program
MDL – method detection limit
MGD – millions of gallons/day
NMFS – National Marine Fisheries Service
NOAA – National Oceanographic and Atmospheric Administration
NOEC – no observable effect concentration
NPDES – National Pollutant Discharge Elimination System
PAH – polynuclear aromatic hydrocarbons

PPE – personal protective equipment
PWS RCAC – Prince William Sound Regional Citizen's Advisory Council
ROW – right of way
SERVS – Ship Escort Vessel Response System
SIM – selected ion monitoring
TAqH – total aqueous hydrocarbons
TAPS – Trans Alaska Pipeline System
TOC – total organic carbon
TON – total organic nitrogen
TPAH – total PAH
TSS – total suspended solids
UV - ultraviolet
VMT– Valdez Marine Terminal

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Responses for Document 00113

00113-001: Impacts from the operation of the TAPS are addressed for routine operations in Section 4.2.1, "Factors Resulting From the Existence of TAPS Facilities," and for non-routine events in Section 4.2.5, "Non-Routine Factors—Spills Hazards under the Proposed Action." In addition, the descriptions of the affected environment in Section 3 include environmental changes that have occurred as a result of TAPS construction and past operations. Experience gained during operation of the TAPS to date in both cases is considered in the analysis of impacts in the proposed action and alternatives.

00113-002: The BLM believes that all impacts of normal future TAPS operations have been addressed. This summary statement has been further responded to where specific examples are identified later in the Prince William Sound Regional Citizens' Advisory Council comment letter.

00113-003: Spill scenarios, including the catastrophic guillotine break scenarios caused by the crash of a helicopter or a fixed-wing aircraft into the pipeline are discussed in Section 4.4.1 of the EIS. The estimated impacts associated with such scenarios are provided in Sections 4.4.2 through 4.4.4. In most cases the assumptions made resulted in estimates that are conservative in nature, that is, they resulted in impacts that are more severe than what would be encountered under real conditions.

00113-004: As part of the application for renewal process, the applicant provides the BLM with a description of how TAPS would be operated. The description of the operation then becomes a component of the extensive impact analysis conducted by the BLM.

00113-005: Thank you for your comment.

00113-006: We disagree that the depth of analysis was insufficient with respect to identifying the potential impacts of inadequate system maintenance. Important impacting factors directly related to inadequate maintenance as well as impacting factors associated with the maintenance activities themselves are introduced in Section 4.1, including a discussion on how system maintenance, monitoring, and surveillance can serve to mitigate environmental impacts from TAPS operations. The existing TAPS operating record provides a unique opportunity to use empirical data to evaluate the environmental impacts from TAPS operations, including system failures due to inadequate maintenance as well as other factors. These empirical data were incorporated into analyses of environmental impacts in order to replace, to the greatest extent possible, speculation and theory with actual observation and measurement. Likewise, the operating record formed the basis for the impacts associated with waste generation and management associated with normal and off-normal TAPS conditions, as well as accidental spills and releases.

Finally, we note that JPO's oversight activities are now focused strongly on monitoring and surveillance for system integrity and on the adequacy of APSC's response to data collected through such activities. The EIS also discusses the adaptive nature of the JPO oversight authority and the various JPO directives that have been issued, some of which require modifications to existing maintenance programs to improve system reliability or the ability to track system performance. Further, in recognition of the potential adverse consequences to public health and the environment that can result from system or component failures, JPO and APSC have recently introduced a new maintenance paradigm: Reliability-Centered Maintenance (RCM). RCM will continue to place focus on maintenance for system integrity and reliability and ensure that maintenance resources are applied to those system components whose failure represents the greatest safety, health and environmental consequences.

00113-007: TAPS permit and regulatory effluent and emission levels are established through a regulatory process, which includes all available scientific data as well as public participation, to ensure there are no adverse effects on the environment if those permit conditions are met. That is not to say there is no discharge or emission of contaminants from TAPS operations and no resulting impact to environmental media. The DEIS does not conclude that compliance with environmental regulations and permits results in no effects to existing environmental quality. The DEIS does address short-term and long-term impacts of the emissions and discharges from TAPS operations to the environment and public health.

00113-008: The age, condition, operation, and maintenance of TAPS was considered in the preparation of the DEIS. The possibility of pipeline failure is addressed in the spill analysis. In estimating the frequencies and spill volumes for future spills, both the historical data from past spills and the potential for catastrophic spills of large consequence were considered.

The EIS focuses its attention on those off-normal events that are expected to have public health and environmental consequences. Thirteen credible spill scenarios are identified and analyzed. Many of these spill events are precipitated by off-normal conditions within TAPS. Further, the EIS describes those design elements of the pipeline that are intended to provide controls and mitigations of impacts that can result from off-normal conditions. The surge tanks present at some pump stations that would serve as temporary storage for oil in the event that overpressure or other system failures occur are one example of such design features. The mainline RGVs and check valves are also examples of how impacts to the environment would be mitigated or limited in the event of off-normal conditions through existing design elements.

In addition, the reader is referred to 4.1.1.8, “Coordinated Planning and Response to Abnormal Incidents.”

00113-009: Thank you for your comment.

00113-010: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00113-011: Thank you for your comment.

00113-012: The BLM believes that the past, present, and future impacts of the proposed action have been adequately addressed. This summary comment has been addressed in detail where specific examples have been identified in later portions of the Prince William Sound Regional Citizens’ Advisory Council's comment letter.

00113-013: Thank you for your comment and the provided information. The referenced review comments were considered. See Section 4.1.1.7 of the FEIS.

00113-014: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00113-015: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00113-016: To the extent possible, Sections 3.18, 3.19, 3.20, 3.21, and 3.22 contain descriptions of the impacts resulting from TAPS construction and operation. Information availability varies considerable among different species and taxonomic groups depending on the sensitivity and importance of the resource. For instance, relatively good information is available on the types of habitats that have been affected and studies of protected and endangered species provide some information on the effects of TAPS construction and operation. Information is also available on the affect of oil spills, largely as a result of the Exxon Valdez oil spill. Where the information is relevant to the reauthorization of TAPS and alternatives, it has been addressed in Section 4.7, "Cumulative Impacts." Past and present impacts are addressed to provide a basis for understanding those future impacts. The EIS does not attempt, nor is it the purpose of the EIS, to provide an exhaustive evaluation of past impacts.

00113-017: The EIS mentions the cash value of subsistence only once, in Section 3.23.5, and then notes the difficulty in assessing subsistence in such a manner. In contrast, the EIS identifies three roles played by subsistence: economic (in the sense of providing important resources, not in cash terms), sociocultural, and ceremonial (Section 3.24). The latter two roles refer in particular to Alaska Natives, although subsistence is defined based on rural residency (consistent with the current federal definition). The EIS examined every rural community in the vicinity of the TAPS for which subsistence data exist with these criteria in mind. That is, for a community where the vast majority of households harvested or used a wide range of subsistence resources, the preparers of the EIS considered this community benefiting in economic, sociocultural, and ceremonial ways (the latter two again referring in particular to Alaska Natives).

00113-018: The Grant/Lease holds APSC responsible for maintaining normal operating conditions throughout the Federal Grant period. The design basis for TAPS has undergone review and approval, as have any subsequent changes to the design basis. Thus, the normal operating condition of TAPS is a legitimate reference point from which to identify and evaluate environmental impacts. However, the substantial operating record of TAPS provides a unique opportunity to reflect on the environmental impacts that have resulted from past occasions of off-normal conditions, including wholesale failures that have resulted in releases of oil to the environment. These off-normal conditions and their subsequent environmental impacts were incorporated into the assessment of environmental impact, as were the design basis changes and additional controls that were established to preclude future impacts to the environment from off-normal conditions. The passage of the Oil Pollution Act and the substantial strengthening of contingency planning that it directed are examples of how adjustments have been made to past off-normal events. See the text box in 4.1.1.8 for a discussion on how the pipeline contingency plan has changed because of lessons learned as a result of the October 2001 bullet hole incident near Livengood.

Buildup of waxy solids in tanks at the Ballast Water Treatment Facility has received considerable attention by the JPO and APSC, as well as by citizen groups such as PWS RCAC. There is concurrence on an appropriate course of corrective action. See the text box in Section 4.3.13.1.3.

00113-019: If TAPS were designated as a historically significant structural complex eligible for listing on the National Register of Historic Places, dismantlement would trigger consultation with the State Historic Preservation Officer to determine appropriate mitigation measures associated with removal. It is unlikely that such mitigation would preclude removal of the pipeline, with the possible exception of representative examples. Full evaluation of dismantlement, removal, and restoration (i.e., termination) activities will require separate National Environmental Policy Act documentation. The scope of this EIS could not cover detailed termination plans. Indeed, extensive engineering and environmental data will need to be collected prior to any termination decisions. However, Chapter 2 provides the basic assumptions of no action, and these basic assumptions were used in the EIS analyses.

00113-020: Text has been added to the EIS providing additional sources of information on the impact of the spill on communities, fisheries resources and tourism in the Prince William Sound area.

00113-021: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00113-022: References have been added to and deleted from the EIS in response to public comments between the draft and final. All references and citations have been cross-checked to ensure that the citations are indeed listed in the references. The 13 citations provided in the comment as being not listed in the references were referenced in Section 3.30 of the DEIS, with two exceptions; those two references have been added to the FEIS.

00113-023: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00113-024: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00113-025: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00113-026: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00113-027: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00113-028: The reader is directed to the discussion of escrow funds found in Section 2.5.

00113-029: The oil spill prevention and contingency plans along the pipeline, at Valdez Marine Terminal, in Prince William Sound, and at the North Slope are summarized in Section 4.1.4 of the EIS. References are provided from Section 4.1.4 to the detailed planning documents for those four areas. Those documents are updated and reviewed by various state and federal agencies periodically—ranging from every year to every 5 years. The substantive elements of the contingency plans are controlled by ADEC rules (18 AAC 75), which include provisions for public review and comment as part of the plan update procedures. The lessons learned from occurrences such as the Exxon Valdez oil spill and the MP 400 bullet hole incident are incorporated into the documents when they are updated. It is worth noting that the federal Oil Pollution Act of 1990 was, in effect, a lessons-learned from the Exxon Valdez oil spill and has required substantially more contingency planning with respect to tanker movements in Prince William Sound. These issues addressed in the Prince William Sound Contingency Plan. The EIS team used the information that was available in the latest versions of the spill prevention and contingency plans as discussed in Section 4.1.4 and Section 4.4 of the EIS. Section 4.4 of the EIS provides the spill scenarios considered and the estimated impacts from those scenarios. The scenarios range from high frequency/low consequence events to low frequency/high consequence occurrences. The discussion includes potential impacts in the Copper River drainage area. Oil spill prevention and response capabilities and related activities specific to the Copper River drainage area are discussed more fully in a text box that has been added to Section 4.4.4.3.

00113-030: As part of the application for renewal process, the applicant provides the BLM with a description of how TAPS would be operated. The description of the operation then becomes a component of the extensive impact analysis conducted by the BLM.

00113-031: Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10. The discussion in Section 4.4.4.10.2 of the effects of the Exxon Valdez oil spill on fish resources has been expanded and includes additional citations. Text has been added to Section 4.4.4.10.1 to reiterate the importance of the Copper and Lowe Rivers for salmon production in the area and to recognize the potentially severe impacts to salmon in the event of a large spill entering those rivers. Please refer to the text box in Section 4.4.4.3 for a discussion about oil spill prevention and response capabilities and related activities specific to the Copper River Drainage area.

00113-032: Table 2.1 is a summary of direct and indirect impacts related to the three alternatives. It does not include consequences of oil spills or cumulative effects. Past events are addressed in Section 4.7, “Cumulative Effects.” Section 4.7.7.3.5,” Spills,” includes a discussion on the effects on wildlife of the Exxon Valdez oil spill.

00113-033: The affected environment as it exists today, includes the impacts of the past 30 years of TAPS operations. Where appropriate, the affected environment section (Section 3) of the TAPS EIS discusses these past operational impacts. The proposed action would result in continued operation of TAPS for the next 30 years. The assessment of impacts of the proposed action are, where appropriate, based on the knowledge of the past impacts of 30 years of operation, projected for 30 years into the future.

The cumulative impact assessment addresses the impacts of the next 30 years of operation (and other alternatives) added together with the impacts of other past, present, and reasonably foreseeable future actions. Where past and present actions continue to have environmental consequences into the next 30 years, these impacts have been included in the cumulative assessments in Section 4.7.

00113-034: The sentence notes that in addition to skimmers, the oil had either "left the coastal area, had evaporated, had degraded, or was stranded on the shoreline or in sediments." It does not state that skimmers removed the majority of the oil.

Section 3.11.5 is a very brief overview of the Exxon Valdez oil spill to provide background for the later discussions. It is not intended to be a comprehensive discussion of the spill and its subsequent impacts. Please refer to Section 4.4 for an extensive spill analysis for the proposed project. Various subsection of Section 4.7 (Cumulative Impacts) also address the Exxon Valdez and other historical or potential spills.

00113-035: To address the issues of intertidal and subtidal sediment contamination, a short discussion of infaunal and epifaunal invertebrates that serve as food for fish has been added to Section 3.19.1. Discussion of observed and potential effects of oil on infaunal and epifaunal invertebrates has been added to section 4.4.4.10.2.

The discussion of the EVOS is included as background and to describe the current environment that may be affected by future pipeline operations. It is not intended to provide an extensive discussion of the EVOS or to analyze or quantify any of the impacts of the EVOS.

00113-036: To address the issues of intertidal and subtidal sediment contamination, a short discussion of infaunal and epifaunal invertebrates that serve as food for fish has been added to Section 3.19.1. Discussion of observed and potential effects of oil on infaunal and epifaunal invertebrates has been added to section 4.4.4.10.2.

The discussion of the EVOS is included as background and to describe the current environment that may be affected by future pipeline operations. It is not intended to provide an extensive discussion of the EVOS or to analyze or quantify any of the impacts of the EVOS.

00113-037: Section 4.7.8.1 (cumulative impacts, subsistence) has been modified to discuss subsistence before and after the Exxon Valdez Oil Spill in the five villages included in the DEIS directly affected by that spill. Section 4.7.8.2 (cumulative impacts, sociocultural), in turn, has been modified to include a discussion of additional sociocultural impacts following the spill. Sections 4.4.4.14 and 4.4.4.15 (impacts to subsistence and sociocultural systems due to spills) have been modified to note disruption due to involvement of subsistence practitioners in oil clean-up activities.

Text has also been added in Section 4.7.8.3 to provide additional sources of information on the impact of the spill on communities, fisheries resources, recreation and tourism in the Prince William Sound area.

00113-038: Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10. The discussion in Section 4.4.4.10.2 of the effects of the EVOS on fish resources has been expanded and includes additional citations.

The discussion of the EVOS is included in the document as background and to describe the environment that could potentially be affected by future pipeline operations. It is not meant to be an exhaustive treatment and does not attempt to list or quantify the impacts caused by the EVOS.

00113-039: The EIS focuses its attention on those off-normal events that are expected to have public health and environmental consequences. Thirteen credible spill scenarios are identified and analyzed. Many of these spills are precipitated by off-normal conditions within TAPS. Further, the EIS describes those design elements of the pipeline that are intended to provide controls and mitigations of impacts that can result from off-normal conditions.

Buildup of waxy solids in tanks at the Ballast Water Treatment Facility has received considerable attention by the JPO and APSC, as well as by citizen groups such as PWS RCAC. There is concurrence on an appropriate course of corrective action. See the text box in Section 4.3.13.1.3.

00113-040: The impacts of a catastrophic failure, that is, a guillotine break in the pipeline, have been considered in the EIS (See Section 4.4). Corrosion is not expected to result in a catastrophic failure. The mechanisms that are in place, for example, the monitoring of the pipeline using smart pigs, are expected to detect corrosion thinning in the pipeline. If the data indicate thinning and deterioration in the pipeline, the pipeline would be repaired or rerouted to prevent catastrophic failures. Existing grant stipulations already require APSC to carefully monitor for corrosion. As discussed in Section 4.1.1.7, the JPO and APSC are in the process of applying reliability centered maintenance (RCM) protocols to all TAPS systems. Under the RCM process, a decision to reduce maintenance would result only for systems or subsystems for which the consequence of their failure would be insignificant. RCM evaluation of failure consequences would require very proactive maintenance of the mainline pipe to avert the consequences of wholesale failure due to corrosion. Data from instrument pig runs as well as monitoring and surveillance of the pipeline's extensive corrosion control system would provide the basis for determining if corrosion has progressed to a degree where it would jeopardize pipeline integrity. If that were found to be the case, repair would be directed by the JPO as a high-priority matter.

00113-041: Under the Federal Grant, APSC is responsible for maintaining and operating TAPS safely and in a manner that is sufficiently protective of public safety and the environment. (See Grant Stipulation 1.21.1.) Except for contingency planning where Alaska regulations specifically call for an evaluation of the adequacy of resources (equipment as well as personnel) by regulatory authorities, APSC alone has the responsibility for developing appropriate management practices and operating procedures and committing adequate resources to successfully implement those systems. However, in its oversight capacity, the JPO does have the opportunity to evaluate the adequacy of APSC's operating practices and does consider resource commitments (both equipment and personnel, including levels of training) as part of the root cause analyses it performs for all identified operational deficiencies. The JPO also has authority to require APSC to develop and submit for JPO approval, a corrective action plan that may also include implementing resources. It is inappropriate for the JPO to direct the application of specific types and amounts of resources for TAPS operations. APSC retains the sole responsibility for committing sufficient and appropriate resources to meet its obligations under the Federal Grant and its stipulations.

00113-042: The DEIS reported a total of 26 tankers, which is composed of 10 tankers operated by the Alaska Tanker Company, LLC; 8 tankers operated by Polar Tankers, Inc.; 6 tankers operated by SeaRiver Maritime Inc.; and 2 tankers operated by Seabulk International, Inc. The list of tankers was based on data provided by the APSC and confirmed using information collected by the British Columbia Oil Spill Task Force Prevention Project (available at http://www.ecy.wa.gov/programs/spills/prevention/bap/TAPS%20Trade%20Tanker%20Report.htm).

The estimate of 8 to 10 tankers by 2020 is based on a reduced TAPS throughput of 0.72 million barrels per day, which is lower than the current value of about 1 million barrels per day. As such, the annual number of tanker calls at the VMT is estimated to decrease from a value of 496 (of which 38% are double-hull tankers) to 283 tanker calls in 2020 (of which 100% are double-hull tankers). The decreased number of tanker calls coupled with the increasing use of double hull tankers can be expected to decrease the risk of a major oil spill in the Prince Williams Sound.

00113-043: Sections 3.18, 3.19, 3.20, 3.21, and 3.22 present information on biological resources in their current condition. Sections 4.3.16, 4.3.17, and 4.3.18 present information on past and future effects of TAPS construction and operations on biological resources. Information availability varies among species and taxonomic groups, depending on their sensitivity and importance. The most complete information is available on habitats and protected species.

00113-044: The EIS (Sec. 4.1.4.3) covers in detail the extensive oil spill prevention and response measures in place for tanker vessels docked at the VMT berths and for vessels traveling in waters of the Port of Valdez and PWS. These measures have substantially reduced the risk of tanker oils spills in PWS and the waters of the terminal, including a spill of the magnitude similar to the Exxon Valdez incident.

Since the March 24, 1989, Exxon Valdez incident, the Ship Escort/Response Vessel System (SERVS) has been responsible for overseeing the prevention, preparedness, and response activities for the safe transportation of oil through PWS. The capabilities of the SERVS unit have evolved from an initial emphasis on preparedness and response to a comprehensive program with notably marked emphasis and focus on spill prevention programs. Factors that have weighed heavily in moving SERVS in this direction include careful consideration of recommendations from a number of studies and experience gained in operating the system since its inception. Examples of the studies that have helped improve SERVS prevention capabilities include the PWS Alaska Risk Assessment (Det Norske Veritas et al., 1996) and the Disabled Tanker Towing Study (Bringloe et al., 1993 and Gary et al., 1994). The experiences gained from operating escort vessels and observing tanker traffic under adverse weather conditions have resulted in specific weather-related safety restrictions on vessels operating in PWS (e.g., tankers are not allowed to transit through Hinchinbrook Entrance when winds exceed 45 knots or seas exceed 15 feet). In addition, SERVS has undertaken all necessary response and prevention measures to comply with federal regulatory requirements as mandated in the Oil Pollution Prevention Act of 1990. One of the significant findings coming from the PWS risk assessment study was that the current safeguards and prevention program in place for PWS and the waters in and around the marine terminal has “removed approximately 75% of the system risk that would exist if these safeguards were not in place.”

00113-045: Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10. The discussion in Section 4.4.4.10.2 of the effects of the EVOS on fish resources has been expanded and includes additional citations.

The discussion of the EVOS is included in the document as background and to describe the environment that could potentially be affected by future pipeline operations. It is not meant to be an exhaustive treatment and does not attempt to list or quantify the impacts caused by the EVOS.

00113-046: All of the TAPS historical spill record was considered in developing the 21 pipeline and 12 VMT spill scenarios analyzed in the EIS. In addition to the spills data contained in the TAPS Spills Database, the developed scenarios for the unlikely and very unlikely spill events considered available literature concerning current TAPS operations; available guidance from DOT, DOE, and the FAA; and industry-wide data. The industry-wide data included review of spill scenarios assessed in recent NEPA documents to "ensure consideration of a wide spectrum of spill scenarios consistent with current industry practice."

00113-047: The typographical error in Table 4.4-2 has been corrected.

00113-048: The typographical error in Table 4.4-2 has been corrected.

In developing spill scenarios for the DEIS, the TAPS spills and ADEC databases were heavily relied on in developing scenarios representative of the historical TAPS spills record. These and other databases and several other resources were used in developing scenarios that would be considered low probability high consequence, but creditable events.

The EIS (Sec. 4.1.4.3) covers in detail the extensive oil spill prevention and response measures in place for tanker vessels docked at the VMT berths and for vessels traveling in waters of the Port of Valdez and PWS. These measures have substantially reduced the risk of tanker oils spills in PWS and the waters of the terminal, including a spill of the magnitude similar to the Exxon Valdez incident.

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The 1984 Eastern Lion and the 1997 ballast water treatment facility spills were moderate to relatively small spills. Spills of this magnitude and type and were include in the 34 spill scenarios developed for the PWS in the cumulative impact section of the DEIS (see scenarios 1 through 4 and spill scenario 32).

00113-049: The comment is incorrect in stating that no crude oil reaches open water for spill scenario 11 in Table 4.4-2. The table indicates a holdup of 50,350 barrels of crude oil on land, with 143,450 barrels of crude oil reaching the waters of Port Valdez. Approximately 306,000 barrels of crude oil are assumed to be retained by secondary containment, out of a total spill volume of 510,000 barrels.

00113-050: For consistency within the document and with normally accepted practices for accident analysis, the frequency designations and volume estimates are expressed in the units shown in the EIS.

00113-051: The spill duration accounts for the time required to detect a leak, locate it if not immediately obvious, shut down the pipeline, and take action, such as clamping or draining down, to limit the volume of oil spilled from the pipeline. A guillotine break of the TAPS pipeline would create a leak that is quickly detected by the TAPS leak detection system.

Once a leak is detected, an effort will be undertaken by the APSC to mitigate the effects of the leak. In most cases, the line will be shut down, valves closed, the leak located, and the line drained down, to affect permanent repairs. In some cases, portions of the line may be left open, and active pumping applied to drain the line to tankage and limit spill volume.

A guillotine break assumes that the entire pipeline is broken so that crude oil could flow out of the entire 48-inch diameter opening. During the phase when valves are closed and pumps are shut down, flow is driven by gravity and the spill volume is dictated by changes in elevation and valve closure. A spill duration on the order of hours was estimated based on a typical linear velocity for flowing oil.

00113-052: The complex environmental interrelationships associated with the proposed renewal of the TAPS right-of-way coupled with the diversity of reader interests and needs require the assembly of large amounts of information in the EIS. Cross-referencing is a useful tool to avoid duplication while enabling readers with diverse needs to access sections of interest to them.

00113-053: Scenario 5 in Section 4.4.1 assumes that the majority of the oil is contained inside the boom. The total of 500 barrels released into Port Valdez is the average of two historical spills at the VMT due to a crack in a cargo tank: a 1,700 barrel spill that occurred in 1989 and a 200 barrel spill that occurred in 1994. It may be expected that the volume of crude oil that could potentially be spilled in this scenario to decrease in the future due to the increasing use of double-hull tankers.

00113-054: The frequency of a guillotine break in the pipeline from an airplane impact assumes aircraft crashes to be accidents as opposed to deliberate sabotage by aircraft. Crash frequencies were obtained from the FAA, which shows that most aircraft crashes occur during takeoff or landing. Air traffic data was also taken from FAA data for the various airports in close proximity to the aboveground portions of the TAPS.

00113-055: For consistency within the document and with normally accepted practices for accident analysis, the frequency estimates are expressed in the units shown in the EIS.

00113-056: The objective analysis applies to a large volume spill on a sloped area such that the land slope, artificial barriers (such as access road and highway), and water bodies would restrict the migration of a spill. Because the migration is restricted, the size of contaminated land would also be limited. If a spill is small, the parametric approach would result in a better estimate on the size of contaminated land. Please see Section 4.4.1.3.1 for the assumptions used in the objective analysis.

00113-057: Section 4.4.2 describes both the parametric and objective analysis and explicitly states that loss of spilled oil due to evaporation to the atmosphere was neglected in order to provide a conservative estimate of contaminated the surface areas. The footnote was included only as an illustration of the conservativeness inherent to the estimates by ignoring evaporation. However, it should be noted that the cited evaporation rate of around 15% over a 24 hour period (@ ambient temperatures of around 15 ^{o}C) is based empirically derived data for the light end components of crude for a relatively short period after the spill. Although Fingas' power law and logarithmic fits to evaporation data for periods greater than one day may be in contention, these evaporation rate estimates (18% rate over 7 days and only about 5% over at the end of 8 weeks) for times greater than 5 to 10 days after a spill are not unreasonable estimates for the less volatile crude components. Nevertheless, by ignoring evaporation the estimates provided in the EIS would consistently overestimate the potentially contaminated surface areas for each spill scenario analyzed.

00113-058: Thank you for your comment; however, the text has not been changed in Section 4.4.1.3.2 as suggested.

00113-059: The comment notes that the tank failure frequency assumed in the DEIS is 1.8 x 10-6 and challenges that assumption based on the fact that the Valdez terminal region experienced a severe earthquake in 1964. First, it should be clarified that the assumed frequency for tank rupture accounts for the frequency associated with tank foundation or weld failures and did not consider such failures initiated from any seismic considerations. None of the accident scenarios considered for the Valdez Marine Terminal postulated a seismic-induced failure of tanks or the pipeline at the terminal.

As noted in the DEIS the accident scenarios considered were bounded by frequencies ranging from anticipated events (a frequent occurrence greater than twice each year) to very unlikely events (a rare occurrence, up to a once in a million year probability). Events determined to have a less likely probability of occurrence were screened from further analysis as accidents so unlikely that they would be considered as incredible events. The essential point inferred from the comment is that the final EIS ought to include a frequency of occurrence that reflects a seismic event capable of breaching the tanks design safeguards. This would include seismic design and qualification of the tanks and equipment as well as of the secondary containment.

The following design documents were reviewed in estimating the frequency of a seismic initiated tank failure:

1) TAPS Criteria & Design Bases, 1973, Revised 1974, Volume 2. 4.0 Terminal

2) Earthquake Engineering, Basis for Seismic Design Criteria—Trans Alaska Pipeline, Nathan M. Newmark, Oct. 16, 1972, revised July 30, 1973, as found in Design Document Volume 12.

3) Reassessment of Seismic Design Criteria, Trans-Alaska Pipeline, D.J. Nyman & Associates, December 12, 1995.

The original seismic design criteria was intended to assure the integrity of the pipeline, stations, and terminal equipment exposed to ground motions from an earthquake with a return period of 100 to 300 years or longer. The probability of an earthquake with a 300 year return is 10% in 30 years (0.0033 per year). The Reassessment of Seismic Design Criteria found that more recent earthquake spectra for the terminal site for a 500 year return earthquake did not significantly exceed the original design spectra. That is, the terminal equipment was designed to withstand the ground motion associated with a 500 year return earthquake (probability of occurrence, 0.002). However, this does not mean that the appropriate leak frequency is 0.002. Other unlikely factors have to converge before failure will occur. These are described in the second document listed above. Thus, the expected leak frequency is the product of the following terms:

a) Probability of sufficiently severe earthquake occurrence in any given year. P1=0.002

b) Probability of accelerations associated with that earthquake being experienced at the terminal. P2= 0.25

c) Probability that the intensity of this earthquake will exceed the design values for which the equipment is designed. P3 = 0.1

d) Probability that attenuation due to soil damping and geological structure is low enough to allow the full ground response to reach the terminal structures. P4 = 0.1

e) Probability that structural failure and leak will occur rather than energy absorption and damping through plastic deformation. P5 = 0.1.

The probabilities assigned for b, c, d, and e are those recommended by Newmark. The net leak frequency is P1 x P2 x P3 x P4 x P5 = 5 x 10-7. This frequency would establish a seismic initiated tank failure at the Valdez Marine Terminal as an extremely rare or incredible event. Events with such low probabilities were screened from further analysis in the TAPS EIS.

It should also be noted that previous oil spill risk assessments (Capstone or Technica) conducted for the Valdez Marine Terminal also did not include the risk of a seismic induced tank failure.

00113-060: Additional information about the rate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10. This includes a discussion of observed and potential effects of oil on infaunal and epifaunal invertebrates.

00113-061: The detailed rationale for assuming the second tank would not fail is given on in Section 4.4.3. If one would assume that the dike fire surrounding the 2nd tank could not be contained in a manner to prevent ignition of vapors above the crude oil in this tank and if the tanks subsurface foam injection system also fails, a crude oil tank fire would result. As the tank fire burns, it continues to heat the crude oil in the holding tank eventually resulting in a "boilover" event. Due to the explosive characteristic of crude oil tank "boilovers," the fire would likely spread outside the already raging dike fire to tanks in the adjacent diked areas of the tank farm. This could eventually result in additional boilover events and a very large fire involving the entire marine terminal.

A scenario of this magnitude was not considered for a number of reasons. First, the added mitigation system failure mode probabilities involved would lower the event frequency, which could change an already very unlikely scenario to an event which would be extremely unlikely (< 10-6 per year). Additionally, the lack of a suitable modeling tool for simulating very large industrial fires along with the considerable level of uncertainty in parameter assumptions necessary to model such an event precluded serious consideration of this scenario. Under such circumstances, there is sufficient data to reasonably assume that existing firefighting capabilities available would not be sufficient to extinguish the dike fire, but capabilities in the form of training, equipment and water/foam capacities would be there to contain it. Because large crude oil dike fires and tank "boilover" events are rare, firefighting experience in this area is not extensive. It would therefore be presumptuous to categorically conclude that any large dike fire could be contained at the VMT. At this time it would also be presumptuous to conclude that existing firefighting capabilities currently do not exist to contain a large dike fires at the terminal and therefore to prescribe additional mitigation measures as a remedy. The EIS identifies the authority under which this issue would be most suitably addressed.

00113-062: A footnote has been added to Table 4.4-6.

Comparison of the estimated maximum public and worker impacts are given in Tables 4.4-6 and 4.4-7 with concentration levels of concern are given in Section 4.4.4.7.2 and Tables 4.4-33 and 4.4-34 of the EIS.

00113-063: Section 4.4.3 makes reference to discussion of the exposure health impacts for the estimated combustion product concentrations given in Table 4.4-19a and -19b.

00113-064: Although the analysis assumed that firefighting support from the Valdez Fire Department would be available at the terminal, not having this support would not be of serious consequence. This is the case for two reasons. First, logistic constraints would prohibit the positioning of additional engine companies beyond what could be already reasonably accommodated from deployed VMT engine company foam guns (i.e., monitors/nozzles) around the perimeter of the dike. Finally, the additional foam inventories that could be supplied by the Valdez Fire Department would be small compared with existing inventories at the terminal.

00113-065: In the EIS it was recognized that controlling a large crude oil tank farm dike fire, as postulated in VMT scenario number 10, can be a formidable challenge even for well trained, experienced, and equipped firefighters. Although a large tank farm dike fire was acknowledged as a credible event with potentially large consequences, it was also acknowledged that existing emergency response and contingency plans currently in place for the VMT (including facility evacuation) would be expected to be sufficient for ensuring protection of life and safety.

Considering the large uncertainty in knowing all of the possible outcomes of a dike fire—with current levels of VMT firefighting training, equipment and supplies—specific additional or corrective contingency planning and preparedness actions would be premature at this time. Although an accident resulting in a dike fire from a large spill of the entire contents a crude oil holding tank would have a relatively small likelihood (an expected occurrence of once in 47,620 years), the aircraft crash probability did not account for probabilities associated with deliberate acts (i.e., vandalism or terrorism).

In a post- "9/11" era, such acts are taken very seriously by government agencies and industry. In addition to ongoing APSC initiatives to enhance pipeline system security, government agencies with the appropriate oversight (e.g., JPO member agencies) are well suited for reviewing the adequacy of existing firefighting response capabilities and in providing recommendations, as necessary, to correct any deficiencies. Although the specific type, form, and level of oversight review that might be appropriate would be outside the scope of this EIS.

00113-066: Section 4.4.3 makes reference to a discussion of the exposure health impacts for the estimated combustion product concentrations given in Tables 4.4-19a and -19b.

00113-067: For a given size spill, impacts to surface waters would be greatest if the spill occurred directly to a flowing stream. Such impacts are discussed in Section 4.4.4.3 for six representative rivers that are crossed by the TAPS pipeline. Impacts to surface waters could also occur if oil is discharged to the soil and then flows into a nearby stream or river, as discussed in the comment. Because these impacts would be bounded by impacts of a direct release to water, they are not discussed further.

00113-068: As stated in Section 4.4.4.3, the effectiveness of remediation activities once a slick is either contained or diverted to an appropriate containment site is not evaluated because of highly uncertain, site- and time-specific input parameters including the velocity of the water, the presence of waves, turbulence, ice, channel morphology, sediment load, etc. Instead, the percentage of oil subject to recovery is calculated as a measure of response effectiveness. Additional text is added here to state that even under ideal conditions, it is unlikely that 100% of the oil in a river system at a containment site would be removed even if the response team were able to arrive at the site and set up its equipment prior to the arrival of the leading edge of the oil spill.

In a similar manner, the oil spill is treated as plug flow, even though oiling of the shoreline and banks occurs in a spill. As discussed in Section 4.4.4.3.2, the physical size of the contaminated zone would be larger than the length of the idealized plug because of hangup along the flow path, mixing, entrainment, and remobilization. Use of the plug-flow assumption was selected to demonstrate potential differences in impacts between spills of short and long duration. More accurate quantification of oiling is not possible without highly site and time-specific information on the conditions of the receiving water.

For completeness, additional information was incorporated in Section 4.4.2 to discuss the fate and transport of soluble components of crude oil (e.g., benzene, toluene, ethylbenzene, and xylene - BTEX).

Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10.

The response times were estimated based on detailed information for reconnaissance, response, and containment actions in the event of an oil spill provided in the TAPS Oil Discharge Prevention and Contingency Plan (CP-35-1) prepared by the APSC (2001).

Oil spill equipment is primarily located at the various pump stations along the TAPS and not at the potential spill site. A list of available oil spill equipment is provided in Table 3.1 of the TAPS Oil Discharge Prevention and Contingency Plan (CP-35-1).

The first response measures to arrive at an oil spill site would most likely be from the closest pump station or APSC facility (Fairbanks or Valdez). The time to move heavy equipment under various weather conditions is provided in Tables 1.10 to 1.12 of the previously-cited document. The equipment required for a postulated oil spill is provided in the various sections of the previously-cited document.

The estimated response times for various spill locations considered in the EIS are provided in Table 4.4-13 of the EIS.

00113-069: The spill duration accounts for the time required to detect a leak, locate it if not immediately obvious, shut down the pipeline, and take action, such as clamping or draining down, to limit the volume of oil spilled from the pipeline.

Once a leak is detected, an effort will be undertaken by the APSC to mitigate the effects of the leak. In most cases the line will be shut down, valves closed, the leak located, and the line drained down, to affect permanent repairs. In some cases, portions of the line may be left open, and active pumping applied to drain the line to tankage and limit spill volume.

The effect of lower viscosity on oil drainage due to cooling upon exposure to colder air after the pipeline break was not considered, because the temperature of the crude oil in the pipeline is not expected to decrease rapidly with time after shutdown (due to its large thermal mass) and because the primary impact of lower crude oil viscosity would be to reduce the spill volume and thereby the spill duration.

00113-070: Impacts from a catastrophic guillotine break with direct discharge to a river are analyzed in Section 4.4.4.3.2, Unlikely Spill Events, and Very Unlikely Spill Events. Impacts produced by a very unlikely spill event (produced by a helicopter crashing into the pipeline and causing a guillotine break) would be the same as those discussed for the Unlikely Spill Event (a fixed-wing aircraft crashes into the pipeline producing a guillotine break). Impacts for high-flow conditions are presented in Table 4.4-20.

00113-071: The comment appears to refer to spill scenario 11 in Table 4.4-2, which indicates a holdup of 50,350 barrels of crude oil on land based on an initial spill volume of 510,000 barrels. The amount of holdup of crude oil on land for a given spill scenario is dependent on a number of factors, including proximity to surface water. A number of scenarios were postulated that assumed that a spill occurred during tanker loading operations, with a direct spill to water.

The text box for Section 4.4.4.5.1 of the DEIS is correct in stating there are nine scenarios identified in Table 4.4-2 with releases to water. Table 4.4-2 has been revised to indicate that, in Scenario 8, 100 bbl reach the water of Port Valdez.

For spills with a frequency greater than once every thirty years, actual spill data involving small or moderate leaks provided in the TAPS Spill Database (2001) were used. Incident-rate and spill-size distribution information provided in the TAPS Spill Database (2001) were used to determine the probable return interval of various sized spills for the VMT. Based on the probable spill-size distribution curve, the spill volume was established for given spill frequency (0.5/year for an anticipated spill event, 0.03/year for a likely spill event). Therefore, the spill scenarios postulated for the VMT analysis agree with historical spill information over the first 25 years of TAPS operations. The perceived difference may be because most spills are relatively small and these tend to skew the distribution towards lower spill volumes for a given overall spill frequency.

In addition, scenario 5 assumes a total of 500 barrels released into Port Valdez, which is the average of two historical spills at the VMT due to a crack in a cargo tank: a 1,700 barrel spill that occurred in 1989 and a 200 barrel spill that occurred in 1994. It may be expected that the volume of crude oil that could potentially be spilled in this scenario would decrease in the future due to the increasing use of double-hull tankers.

00113-072: Section 4.4.2 describes both the parametric and objective analysis and explicitly states that loss of spilled oil due to evaporation to the atmosphere was neglected in order to provide a conservative estimate of contaminated the surface areas. The footnote was included only as an illustration of the conservativeness inherent to the estimates by ignoring evaporation. However, it should be noted that the cited evaporation rate of around 15 to 20 % over a 24-hour period (at ambient temperatures of around 15 °C) is based on empirically derived data for the light end components of crude for a relatively short period after the spill. Although Fingas' power law and logarithmic fits to evaporation data for periods greater than one day may be a point for contention, these evaporation rate estimates (18% rate over 7 days and only about 5% over at the end of 8 weeks) for times greater than 5 to 10 days after a spill are not unreasonable estimates for the less volatile crude components. Nevertheless, by ignoring evaporation the estimates provided in the EIS would consistently overestimate the potentially contaminated surface areas for each spill scenario analyzed.

00113-073: A similar description to the behavior of oil released to rivers and creeks is presented in Section 4.4.2 of the EIS.

00113-074: While we recognize that the PWS RCAC has recommended that NPDES permit levels for the BWTF be reduced, the EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms. As identified in the comment, PAH accumulation was detected in mussels used to monitor water quality in Port Valdez as part of a PWS RCAC-sponsored monitoring program (Salazar et al. 2002). In that study, it was found that all measured concentrations of PAHs in water and estimated on the basis of bioaccumulation in mussel tissues indicated that the concentrations of PAHs in Port Valdez waters are in the low parts-per-trillion range, well below the levels that have been associated with adverse effects in herring and salmon embryos (Salazar et al. 2002). In addition, Salazar et al. (2002) did not detect reductions in overall growth of caged mussels that could be attributed to PAH burdens. Instead of stating that BWTF effluent is unlikely to impair sediment quality, Section 4.3.16.1 was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts.

00113-075: Scenario 5 assumes that the majority of the oil is contained inside the boom. The volume of 500 barrels is the amount of crude oil assumed not to be contained within the boom placed around a tanker that is released to the water in Port Valdez.

The total of 500 barrels released into Port Valdez is the average of two historical spills at the VMT due to a crack in a cargo tank: a 1,700 barrel spill that occurred in 1989 and a 200 barrel spill that occurred in 1994. It may be expected that the volume of crude oil that could potentially be spilled in this scenario to decrease in the future due to the increasing use of double-hull tankers.

The spill from the Eastern Lion referred to in the comment occurred on May 22, 1994. A total of 200 barrels (8,400 gallons) of crude oil was released into the water around Berth 5, which is less than the 500 barrels assumed in this scenario.

00113-076: The referenced statement from Section 4.4.4.5.3, is from a NOAA document (NOAA 2000a; see Section 4.9 of the FEIS for the reference)describing North Slope Crude oils and their behavior after a spill. No change was made.

00113-077: Section 4.4.4.5.4 notes that if the assumptions used in the scenario do not occur, that larger areas could be impacted or that the impacts from the spill could be larger.

00113-078: The Unlikely Spills portion of Section 4.4.4.5.4 notes that response times could differ from the assumptions and that these differences could result in larger areas being impacted by the spills. This section also notes that the response is assumed to occur during non-extreme weather conditions, and that adverse weather conditions could result in larger areas being impacted. Additional text has been added to Section 4.4.4.5.4 to clarify that if the assumptions are not met, that the impacts from the spill would be significant and affect a much larger area.

00113-079: Additional text has been added to Section 4.4.4.10 to clarify that if the assumptions are not met, that the impacts from the spill would be significant and affect a much larger area.

Assuming the wind direction does not change before the response, is conservative. Since the oil travels in only one direction during the response time it covers a larger distance and subsequently oils a larger portion of the shore line. As discussed in Section 4.4.4.10, a sensitivity of the calculation to wind direction was evaluated.

Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10. The discussion in Section 4.4.4.10.2 of the effects of the EVOS on fish resources has been expanded and includes additional citations.

The discussion of the EVOS is included in the document as background and to describe the environment that could potentially be affected by future pipeline operations. It is not meant to be an exhaustive treatment and does not attempt to list or quantify the impacts caused by the EVOS.

00113-080: The estimated response times for various spill locations considered in the EIS are provided in Table 4.4-13. The spill duration accounts for the time required to detect a leak, locate it if not immediately obvious, shut down the pipeline, and take action, such as clamping or draining down, to limit the volume of oil spilled from the pipeline. Oil spill equipment are primarily located at the various pump stations along the TAPS and not at the potential spill site. A list of available oil spill equipment is provided in Table 3.1-6 of the "Trans-Alaska Pipeline System Pipeline Oil Discharge Prevention and Contingency Plan, CP-35-1 GP," prepared by the APSC (2001).

The first response measures to arrive at an oil spill site would most likely be from the closest pump station or APSC facility (Fairbanks or Valdez). The time to move heavy equipment under various weather conditions is provided in Tables 1.10 to 1.12 of the previously-cited document. The weather conditions considered in estimation of the response times included worst-case, average, and best-case conditions. In order to avoid biasing the results, average value response times were used in all of the inland waters calculations.

As stated in Section 4.4.1, potential spill scenarios were developed by using available literature concerning current TAPS operations. Recent NEPA documents for other pipeline projects were also reviewed to ensure consideration of a wide spectrum of spill scenarios consistent with current industry practice. The developed spill scenarios took into account spill location, duration, magnitude, and frequency. A spectrum of spill scenarios were considered that spanned the frequency range from those which could be considered to be anticipated (spills estimated to occur one or more times every 2 years of TAPS operations) to very unlikely (spills estimated to occur between once in 1,000 years and once in 1 million years of TAPS operations).

As discussed in Section 4.4.2, impacts are assessed on the basis of the response team arriving at a containment site and deploying its equipment prior to the arrival of the oil in the river or stream. If the team arrives and sets up prior to the arrival of the oil, 100% of the oil is "subject" to capture. However, depending on conditions such as weather, river flow velocity, turbulence, sediment load, evaporation, dissolution, type of equipment used, and the degree of expertise of the response team, the quantity of oil recovered could be substantially less than 100%. Actual capture is not quantified because of the numerous uncertainties in the calculations. Additional text has been added to Section 4.4.4.3.2 to clarify the difference between capture and subject-to-capture efficiencies.

00113-081: Table 3.13-6 of the EIS lists the total emissions of hazardous air pollutants (HAPs) from the Valdez Marine Terminal as 122.9 tons/year (or about 673 pounds/day), which is approximately 5 times the threshold level of the HAPs emission rate for a major source.

Potential health impacts associated with ambient concentrations of benzene, toluene, ethyl benzene, and xylene (BTEX) in the Valdez area under the proposed action (at crude oil throughput levels of 0.3, 1.1, and 2.1 million bbl/day) and other alternatives were estimated on the basis of conservatively high ambient concentration estimates of BTEX and other toxic air pollutants emitted from the Ballast Water Treatment Facility (BWTF) and other sources at the Valdez Marine Terminal (Sections 4.3.13, 4.5.2.13, and 4.6.2.13). These ambient concentration estimates are based on the ambient BTEX concentrations monitored during the 1990-1991 personal and ambient monitoring studies and the tracer studies conducted in the Valdez area when vapor emissions from both the tankers and the BWTF units were being released.

00113-082: The EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts (see Section 4.3.16.1).

00113-083: The EIS correctly identifies that BWTF discharges are below current NPDES permit limits. The impact of permit levels are assessed when the permits are issued.

00113-084: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00113-085: The assumptions that contributed to the North Slope production volumes used in all of the analyses in the EIS are described in detail in Appendix A, “Methodology Descriptions,” which is Section A.15.1.4, and in Figure A-2, “Projections of North Slope Crude Oil Production.” Production from all reasonably foreseeable development on the North Slope is expected to decline from 2004 to 2034. As explained in the “Cumulative Effects” section at 4.7.4.1.1, oil and gas production from the Arctic National Wildlife Refuge cannot be assumed, and is, therefore, not included in the reasonably foreseeable development scenarios.

The EIS considered 2.1 million barrels/day as the maximum throughput for the analysis.

00113-086: The hypothetical spill scenarios for Prince William Sound followed the methodology used in the “Prince William Sound, Alaska Risk Assessment Study” (Det Norske Veritas et al. 1996; see reference in Section 4.9). In addition to using expert judgment to develop relative probabilities of incidents, the methodology in the above-cited document used simulation to count how each opportunity for a vessel reliability failure or a vessel operational error will occur in a well-defined time period. 1995 was selected as the base case year and 25-year runs using the base case input data were used to produce a base case risk picture. The simulation included dynamic changes in weather conditions, ice conditions, traffic, and traffic conditions. The mix of the tanker fleet in terms of the numbers of single-hull tankers versus double-hull tankers was what existed in 1995.

The analysis in the EIS took into account the maximum and minimum average tanker capacity and annual number of tanker trips during the renewal period from 2004 to 2034 in light of the projected TAPS throughput for those years. These are considered to bracket the baseline year of 1995 regarding spill volume and accident frequency and account for changes in the number of tanker trips per year in the renewal period from 2004 through 2034. Although the tanker fleet will be completely double-hull by 2015, the analysis in the EIS for estimating the spill frequencies and volumes in the PWS did not account for this change, and thus could be considered to be conservative.

Table 4.7-6 provides a listing of spill scenarios for tanker accidents in Prince William Sound, including catastrophic spill events.

00113-087: Section 4.4.4.5.4 state that is these assumptions are not met, larger areas or larger impacts could occur.

00113-088: The cumulative impacts of other activities on marine resources is discussed in Section 4.7, "Cumulative Impacts."

00113-089: Analysis of operations resulting from lower throughputs show that releases to the environment would be the same or less than historical releases. Based on this analysis, impacts from lower throughput would be the same or lower than those from historical operations.

00113-090: Accident assessment methodologies have traditionally assumed conservative or "worst-case" conditions for estimating the potential consequences and risks. The analysis assumptions made in the EIS are consistent with this approach. The assumed air temperature for carrying out spill evaporation calculations was based upon the review of historical weather records in Alaska. This record shows that the highest monthly mean temperature in Alaska ranges from 39.3 °F at Barrow to 62.5 °F at Valdez. The calculation assumed a temperature of 60 °F (15.6 °C) as conservative estimate for VOC emissions from crude oil spills.

00113-091: The commentor observes that section 4.4.1.3.2 does not include effects of "landslide/avalanche/tsunami" resulting from earthquake. A tsunami could result from an earthquake beneath the sea, possibly far removed from the site, or from a landslide within the port triggered by an earthquake. To prevent tsunami-related damage, all on-shore equipment is located above the 30-foot run-up reported by the USGS as experienced in the 1964 earthquake. Crude oil tank elevation is 400 feet. Other structures are at 50 feet, with the exception of the water pump house at 35 feet. A Tsunami warning system will give adequate warning of a tsunami generated from outside of the port for ships to leave their berths. To accommodate a tsunami generated within the port, the harbor facilities have been designed to resist a 12-foot tsunami with a ship at berth and a 20-foot tsunami with no ship at berth. This 12-foot tsunami design criteria was established by analysis performed by Marine Advisers in 1969, and is consistent with the 30 foot run-up experienced in 1964. Furthermore, because of concern about earthquakes and tidal waves, all port facilities were founded on bedrock. For these reasons, a tsunami was not considered to be a credible leak initiator at the terminal and the effects of "landslide/avalanche/tsunami" resulting from an earthquake at the VMT were considered but not analyzed in detail in the EIS. For more information on the design bases and criteria for the VMT, the reader is referred to "TAPS Criteria & Design Bases, 1973, Revised 1974, Volume 2, 4.0 Terminal: Section 4.2.1.3, Site Development Plan, and Sections 4.4.2.4,Tsunami; 4.5.2.4, Tsunami."

00113-092: This statement refers to impacts to shorelines that have not been oiled. "Impacts could also occur in other areas of Port Valdez and Prince William Sound away from the release point or oiled shoreline." It notes that these "other impacted areas" would have impacts similar to historic impacts and from impacts due to the current hydrocarbon levels in these areas.

00113-093: Payne (2002) states that the estimated mass removal rate of the BTEX compounds at the Dissolved Air Floatation (DAF) system of the Ballast Water Treatment Facility (BWTF) is approximately 580 pounds/day or 105 tons/year and that much of this mass is released to the atmosphere rather than collected with skimmed oil. This implies that a certain fraction of the BTEX compounds removed by the DAF system remains in the oil skimmed off and is not released to the atmosphere, and therefore the atmospheric emission rate of BTEX compounds would be less than 105 tons/year. However, Payne (2002) did not estimate the breakdown between the amount of BTEX contained in the skimmed oil and the amount emitted to the atmosphere. The atmospheric emission rate of the BTEX compounds from the BWTF estimated by APSC is about 493 pounds/day or 90 tons/year. Conservatively high ambient concentration estimates of BTEX and other toxic air pollutants emitted from the BWTF and other sources at the Valdez Marine Terminal were considered in estimating potential health impacts associated with ambient concentrations of these pollutants in Valdez area under the proposed action (at the crude oil throughput levels of 0.3, 1.1 and 2.1 million bbl/day) and other alternatives (see Section 4.3.13, 4.5.2.13, and 4.6.2.13).

00113-094: This statement is in the section evaluating normal operations. This statement does not imply that an oil spill of the size of the Exxon Valdez oil spill is expected during normal operations. The impacts from accidents to marine waters are discussed in Section 4.4.4.5.4.

00113-095: The impacts of a large oil spill are assessed in Section 4.4.4.5.4, "Unlikely Spills." Section 4.7, "Cumulative Impacts," includes the consequences of a large oil spill in appropriate sections.

00113-096: Benzene and other volatile organic compound (VOC) emissions from the Dissolved Air Floatation (DAF) tanks and biological treatment system associated with the Ballast Water Treatment Facility (BWTF) at the Valdez Marine Terminal (about 493 pounds/day or 90 tons/year) are included in the total emissions of hazardous air pollutants from the Valdez Marine Terminal (about 673 pounds/day or 122.9 tons/year) as listed in Table 3.13-6 of DEIS.

Conservatively high ambient concentration estimates of benzene, toluene, ethyl benzene, and xylene (BTEX) and other toxic air pollutants emitted from the BWTF and other sources at the Valdez Marine Terminal were considered in estimating potential health impacts associated with ambient concentrations of these pollutants in Valdez area under the proposed action (at the crude oil throughput levels of 0.3, 1.1 and 2.1 million bbl/day) and other alternatives (see Section 4.3.13, 4.5.2.13, and 4.6.2.13). These ambient concentration estimates are based on the ambient BTEX concentrations monitored during the 1990-1991 personal and ambient monitoring studies and the tracer studies conducted in the Valdez area when both the vapor emissions from tankers and the DAF units were released. The baseline ambient concentrations used in the health risk calculations were given in the Affected Environment section (Table 3.17-4); a reference to this table has been added to the footnotes of Table 4.3-4 to clarify.

The text box in Section 4.3.9 has been modified.

With respect to food chain exposure issues and BWTF diffuser discharges, the mussel tissue PAH concentrations reported in Payne et al. (2001) are total PAH concentrations. No human health risk assessment for ingestion of mussels is provided in that report. The evaluation of risk from ingestion of highly contaminated shellfish presented in Section 4.4.4.7.4 adequately characterizes potential health risks from the ingestion pathway.

00113-097: The analyses of landslides and liquefaction along the TAPS right-of-way are provided in the design document (APSC 1974, Appendix Volume 3, Geotechnical Aspects, Section 4). Reference to this document has been added to the FEIS (see Section 4.9).

With the warming trends in the last several decades in Alaska, permafrost, in general, is expected to degrade. During the design of the TAPS, APSC conducted detailed analyses of all pipeline slopes and assessed the slope stability and liquefaction potential of all slopes. In the analyses, the effect of the warming trends along the TAPS was not explicitly considered. The thawing due to heat transfer from the pipeline and the ground surface disturbance was calculated with the assumption of a 30-year time span. With the operation life of the pipeline extended for another 30 years, additional thawing of the permafrost, especially in the southern portion of the TAPS, is likely to occur. On slopes with fine-grained geologic material, soil water generated from the thawing may not be able to drain fast enough such that the pore pressure could increase. Also, new critical surfaces for sliding might emerge. These two factors can potentially cause a previously stable slope to become unstable, especially on slopes that have been assigned a design safety factor of 1 or close to 1 under dynamic loading conditions. Further, if a major earthquake occurs near these areas at a time when the water content of the soil is high, the probability of a landslide can't be ignored. When a landslide occurs, its failure plane or planes can be below the elevations of the pipeline. Under such conditions, the pipe can be carried down the slope with the slide. Therefore, it is concluded that the risk for landslides along the TAPS can increase in the next 30 years.

For the liquefaction issue, liquefaction can occur both on slopes (greater than 2 degrees) and in flat areas (less than 2 degrees) in saturated, loose non-cohesive soils (sands) under intensive shaking (a major earthquake). On sloping ground, liquefied soils tend to move down slope. In flat areas, liquefied soils result in a loss of strength. Structures that use the soils for support may fail.

In the design of the pipeline (APSC 1974, Appendix Volume 3, Geotechnical Aspects, Section 4), the areas of potential liquefied soils for the flat ground areas are estimated to be local and limited. The impact on buried pipe was considered to be less severe than that of equivalent seismic fault movement that was established to be safe. However, it is uncertain if the local and limited estimation is still valid without a detailed analysis. The original assumption of thawing due to the heat transfer from the pipeline and the ground surface disturbance was for a 30-year time period. Regional warming in Alaska was not explicitly included in the evaluation. The original design met criteria for a liquefiable body of small or large size. Sand bodies of various sizes are common because of the abundance of fluvial and lake deposits along the TAPS (e.g., the Copper River Basin and various basins within U-shaped glacial valleys). If liquefaction occurs in a sand body of intermediate dimensions, local overstressing can develop and threaten the integrity of the pipeline (APSC 2001e, Design Basis Update DB-180, 3rd ed., Rev. 3; reference in Section 4.9 of the FEIS).

In sloped areas, one of several protective measures to reduce the liquefaction threat was to bury the pipeline below a liquefiable soil layer. It is generally accepted that frozen soil is non-liquefiable. However, a previously frozen soil may thaw because of the affects of the continuous warming trend in Alaska. Under certain geologic and hydrologic conditions, the previously non-liquefiable soil may become liquefied. Without a detailed study, it is difficult to quantify the extent of the impact of the regional warming on the liquefaction potential. Therefore, a qualitative conclusion stating that "With a continuation of the current warming trend in Alaska, the risk of earthquake-triggered liquefaction and landslides is expected to increase" was made.

The returned period of a big earthquake used in the TAPS design is 500 - 1,000 years. The US Geological Survey use a return period of 500 years and 2,500 years in their seismic hazardous analysis.

The number and size of thaw bulbs along the TAPS ROW are likely to change over the renewal period. The direction of the change primarily depends on the change in throughput for the pipeline and the temperature of the oil. If the throughput and temperature decrease, the number and size of thaw bulbs is likely to decrease. Conversely, the number would increase for higher throughputs and temperatures. The maximum number and size of bulbs corresponds to the period of time in which the pipeline was flowing at full capacity. Because this condition was met years ago and the pipeline throughput can not exceed this capacity, increases in the number and sizes of bulbs would be bounded by those observed historically.

00113-098: The Executive Summary has been substantially revised.

00113-099: The Executive Summary has been altered extensively to reflect new information contained in the FEIS.

00113-100: The protection of cleanup workers is regulated under the Occupational Health and Safety Act and is, therefore, beyond the scope of the EIS.

00113-101: The executive summary only gives summary findings of the section on human health and safety impacts of spills (Section 4.4.4.7). Section 4.4.4.7.4 (Impacts from Foodchain Exposures Resulting from Spills to Water) references and discusses both the Varanasi et al 1993 and Field et al. 1999 studies (several individual chapters from Field et al. are referenced, including Bolger and Carrington 1999, Hom et al. 1999, and Fall 1999b). Section 4.4.4.7.4 provides the details on how the conclusions were reached. The references cited here can be found in Section 4.9 of the FEIS.

00113-102: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00113-103: Text has been added to the EIS in Sections 4.3.19.1.2 and 4.6.2.19.1 providing additional information on the assumptions used for the analysis of state and local government finances.

00113-104: To the greatest extent possible, the pipeline route in earthquake-prone area was selected to avoid previous landslide areas, and soil that would be subject to liquefaction. Additional engineering practices, including placing underground pipeline segments in stable frozen soil and permissible movement and deformation of the pipelines, were also used to minimize the impact of earthquakes on the pipelines.

The potential impacts to pipeline integrity from seismic events are discussed in Sections 4.3.3 and 4.3.2. Section 4.1.3.2 discusses monitoring for seismic events that is required by Stipulation 3.4.1.2. Seismic monitors will send signals to the control center at VMT that will initiate pipeline shutdown procedures, when warranted and if the operator fails to take the proper actions within prescribed time frames. Potential spills along the pipeline due to seismic events are discussed in Section 4.4.1.3.1.

Please note that the November 3, 2002 earthquake resulted in an effective automatic shutdown. See Sections 3.4 and 4.3.3 for a discussion of this earthquake.

00113-105: The Executive Summary summarizes the EIS. The past actions associated with TAPS are addressed as part of the description of the Affected Environment in Section 3, “Affected Environment.” This section also describes the impacts of the Exxon Valdez oil spill. However, past TAPS impacts and the past impacts of other actions are not the major emphasis of this document, which must address the impacts of the proposed action, which is renewal of the federal grant for an additional 30-year period, and alternatives. In Sections 4.1-4.6, “Consequences, the Impacts of the Proposed Action” are addressed in detail, including the continuing impacts of TAPS operations. Section 4.7 addresses the impacts of other actions, including oil transportation and oil spills in Prince William Sound. The impacts of the Exxon Valdez oil spill are included in the affected environment section (Section 3), in the subsections dealing with Prince Williams Sound. Additional information provided during the comment period has been reviewed and incorporated where appropriate.

00113-106: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00113-107: Because requiring actual cash escrow accounts for dismantlement, removal, and restoration is not within the jurisdiction of the Department of the Interior, laws and regulations would be required to provide that authority. The Department of the Interior cannot compel the Congress to pass laws, but if enabling legislation were passed, regulations to implement the law would require NEPA analysis.

The reader is directed to the discussion of escrow funds found in Section 2.5.

00113-108: The assumptions that contributed to the North Slope production volumes used in all of the analyses in the EIS are described in detail in Appendix A, "Methodology Descriptions," which is Section A.15.1.4, and in Figure A-2, "Projections of North Slope Crude Oil Production." Production from all reasonably foreseeable development on the North Slope is expected to decline from 2004 to 2034. As explained in the "Cumulative Effects" section at 4.7.4.1.1, oil and gas production from the Arctic National Wildlife Refuge cannot be assumed, and is, therefore, not included in the reasonably foreseeable development scenarios.

The EIS considered 2.1 million barrels/day as the maximum throughput for the analysis.

00113-109: Information has been added to Sections 3.21.1.2 and 4.7.7.3.2 on the effect of the oil industry on caribou. A discussion on the potential obstruction to wildlife movements related to TAPS can be found in Section 4.3.17.4. Section 4.7.7.3.4 addresses cumulative impacts on wildlife movements. While some delays or reluctance to cross TAPS have been noted for a few individuals, no adverse impacts have occurred to caribou herds or other wildlife populations.

00113-110: The issue of the TAPS being potentially eligible for listing on the National Register of Historic Places is addressed in Section 3-26.4. If the pipeline is evaluated and found eligible then removing it could be an adverse effect that would require mitigation. However, a formal evaluation of the pipeline's significance has not been made.

00113-111: The text in Table 2-1, Section 4.3.24.1, and Section 4.6.2.24.1 has been modified to clarify the potential impacts on state recreation facilities.

00113-112: Infrastructure for the VMT is described in Section 3.1.2.1.8 of the EIS. Additional details about the Ballast Water Treatment Facility and other facilities and operations that could result in waste generation and discharges to the environment at the VMT are provided in Appendix C of the EIS.

00113-113: To our knowledge, no comprehensive studies of background levels of these chemicals have been completed since Colonell (1980). Where appropriate and available, more recent studies were cited for specific chemicals or areas such as Salazer et al. (2002) in Section 4.3.16.1. See Section 4.9 for these references.

00113-114: Buildup of waxy solids in tanks at the Ballast Water Treatment Facility has received considerable attention by the JPO and APSC, as well as by citizen groups such as PWS RCAC. There is concurrence on an appropriate course of corrective action. See the text box in Section 4.3.13.1.3.

00113-115: Cumulative effects result from the incremental impact of a proposed action and alternatives when added to other past, present, and reasonably foreseeable future actions. Cumulative effects can include consequences of historic oil spills if the oil spill had not been remediated and long-term adverse effects on the environment and human health persist. This appears not to be applicable in the case of the 1994 Eastern Lion oil spill nor in the case of the 1997 ballast water spill from the Ballast Water Treatment Plant at the VMT.

With respect to the 1994 Eastern Lion oil spill, the following was abstracted from "Oil and Hazardous Materials Response Reports, October 1993-September 1994," prepared by the National Oceanic and Atmospheric Administration (February 1995, available at http://response.restoration.noaa.gov/oilaids/spillreps/OHMRRF94.pdf).

On May 21, 1994, Marine Safety Office Valdez (USCG) received a report from the master of tank vessel (T/V) Eastern Lion (on lease to British Petroleum [BP]) of oil in the water around the vessel loading at berth 5 of the VMT. APSC (SERVS) response crews immediately began conducting cleanup operations; however, the shorelines on Saw Island and near berths 4 and 5 were lightly impacted. The small slick created by the escaping oil was largely contained in the terminal area, with significant sheens to the east and west. Weather throughout the incident was mild with relatively calm winds.

Sheens from the spill moved east and west with the tidal current, extending from the Soloman Gulch Salmon Hatchery on the east to Anderson Bay on the west, about 9 miles. Sheens were also reported on the north side of the Port of Valdez near Duck Flats and the mouth of Mineral Creek. Cleanup personnel recovered 1,366 barrels of oily liquids, containing 78 barrels of oil. Approximately 5,700 bags and drums of solid waste were recovered. Approximately 30% of the oil evaporated. The small amount of shoreline impacted near berth 5 was a rocky shoreline for which no cleanup was recommended.

After taking care of all the surface oil, BP instituted a formal shoreline assessment (SCAT process) for the entire Port of Valdez. Only light oiling near berth 5 was noted and no shoreline cleanup was recommended. BP established a wildlife center in Valdez and activated the Anchorage wildlife facility. Although some birds, seals, and otters were sighted in light sheens, none were in distress or captured. Precautionary booming was implemented around the hatchery and in front of Duck Flats. The USCG and the State of Alaska were heavily involved in the response, which lasted three days.

On January 10, 1997, approximately 300 gallons of ballast water residue (oil, other) was spilled from the VMT Ballast Water Treatment Plant (BWTP).

The Prince William Sound RCAC has a long term monitoring program in place to assess pollution problems in and around VMT facilities, as well as other regions of Prince William Sound and the adjacent Gulf of Alaska.

The BWTP spill sampling in January 1997 and the subsequent sampling showed somewhat elevated total polycyclic aromatic hydrocarbons (TPAH) levels, although these values were again within the range of historical values seen at this site. As reported elsewhere, statistical comparisons of the BWTP spill sampling with historical data from this site failed to show significant differences between sampling times, nor were the fingerprints from tissues from the BWTP sampling indicative of contamination from the spilled oil (http://www.pwsrcac.org/oldsite/Ltemp/LTEMP%20reports/Ltemp98.html).

00113-116: The BTEX emissions from the Dissolved Air Floatation (DAF) tanks and biological treatment system associated with the Ballast Water Treatment Facility (BWTF) at the Valdez Marine Terminal (about 493 pounds/day or 90 tons/year) are included in the total emissions of hazardous air pollutants from the Valdez Marine Terminal (about 673 pounds/day or 122.9 tons/year) as listed in Table 3.13-6 of DEIS. This will be reflected in Table 3.13-6 of FEIS.

The 4th paragraph of Section 3.13.1 of DEIS states that some equipment at Pump Stations #2 and #7 and Valdez Marine Terminal are also subject to various limits of the Prevention of Significant Deterioration (PSD) regulations. These equipment at Pump Stations #2 and #7 and Valdez Marine Terminal are described in the PSD permit applications submitted to Alaska Department of Environmental Conservation (APSC 1990a, b, and Fluor and TRC 1995) and the limitations imposed by the PSD regulations are described in the Alaska Administrative Code 18 AAC 50.020. These references are in Section 3.30 of DEIS. The DEIS (Section 3.13) correctly notes that all TAPS facilities have applied for Title V operating permits. Some equipment is also subject to PSD regulations.

Table 3.13-2 presents actual emissions from Valdez Marine Terminal. No revision is needed.

00113-117: The text in Section 3.13.1.1 has been revised.

00113-118: The BTEX quantity (approximately 580 pounds/day or 105 tons/year) estimated by Payne (2002) is the mass removal rate of the BTEX compounds at the Dissolved Air Floatation (DAF) system of the Ballast Water Treatment Facility (BWTF), not the rate of the BTEX emissions to the atmosphere from the BWTF. Although much of this mass is released to the atmosphere, a certain fraction of the BTEX removed by the DAF system remains in the oil skimmed off. Therefore, the rate of BTEX released to the atmosphere would be less than 105 tons/year. The atmospheric emission rate of the BTEX compounds from the BWTF estimated by APSC is about 493 pounds/day or 90.0 tons/year.

00113-119: Ambient standards for the HAPs are not presented because neither the U.S. Environmental Protection Agency nor the State of Alaska has established ambient HAP standards. (Section 3.13.2.2).

The last sentence of the comment states that “the DEIS should address the environmental impact of the HAPs and reconcile impact with EPA’s definition of major source.” Section 4.3.13.2 of the DEIS presents the assessment of potential health impacts of HAPs released from the Trans-Alaska Pipeline System (TAPS) facilities, including the Valdez Marine Terminal. The 25 tons per year value is merely a threshold value used to define a “major” source of HAPs,” not the upper limit of the HAPs emissions that the law (Clean Air Act) allows.

00113-120: The 105 tons/year of BTEX estimated by Payne et al. (2002) is not the rate of atmospheric emissions from the DAF system. Rather, the value is the mass removal rate by the DAF system, consisting of the amount of BTEX contained in the skimmed oil and the amount released into the atmosphere. The current atmospheric emission rate of the BETX compounds from the Valdez Marine Terminal estimated by APSC is about 105.7 tons/year (Table 3.13-6 of DEIS). The atmospheric emission rate of BTEX from the Valdez Marine Terminal prior to the installation of vapor recovery system (during 1990-1991 period when the crude oil throughput was about 1.8 million bbl/day) was estimated to be about 900 tons/year (Goldstein et al. 1992), which is more than 8 times the current estimate (105.7 tons/year) of atmospheric emissions of BTEX from the Valdez Marine Terminal. Therefore, it can be estimated that the BTEX concentrations around the Terminal would have decreased substantially and those in the city of Valdez would have also decreased to some extent.

00113-121: Thank you for your comment.

00113-122: The tracer study was conducted for 10 days during the summer (August) of 1990 and 10 days during the winter (February – March) of 1991. The DEIS did not claim that the other [indoor] sources are responsible for releasing benzene, toluene, ethyl benzene, and xylene (BTEX) emissions from the Valdez Marine Terminal and that these sources would be responsible for the spatial trends observed in the outdoor monitoring program. The DEIS states that the tracer study (which determined the % of ambient outdoor VOC concentrations in Valdez area that is attributable to Valdez Marine Terminal emissions) combined with the measurements of VOC exposures of Valdez residents using personal monitoring devices (which reflect actual inhalation exposures indoors and outdoors by the Valdez residents) showed that only about 1 to 10% of VOC exposures of Valdez residents were attributable to Valdez Marine Terminal emissions.

There are many studies that report that indoor air has higher VOC concentrations than outdoor air, even in highly industrialized areas. For example, a large EPA study conducted in 7 cities in the late 1980s called Total Exposure Assessment Methodology TEAM found that indoor air in the home and at work far outweighs outdoor air as a route of exposure to toxic chemicals (U.S. EPA, Office of Acid Deposition, Environmental Monitoring and Quality Assurance, Office of Research and Development, EPA 600/S6-87/002, September 1987).

Regardless of the source of the VOC compounds in ambient air in Valdez, the risk assessment methodology used in the EIS generally used the ambient VOC levels present in Valdez at the time of the 1991 sampling effort to estimate human health risks. Ambient VOC levels have been decreasing in the past decade in many U.S. cities (see http://www.epa.gov/airtrends/toxic.html).

00113-123: 1) Tracer study can be used because it was conducted simultaneously with the personal and indoor/outdoor ambient concentration monitoring during the summer and winter monitoring periods in 1990 and 1991, respectively. (2) The approach used in estimating the emission reduction is sound because it is based on (a) the measured concentrations of VOC in the gas phase in the crude oil storage tank saturated with the vapor from the crude oil, (b) the actual measured concentrations of VOC in the power boiler stack exhaust during the time the VOC emissions from tanker loading is collected by the tanker vapor recovery system and burned in the power boiler furnaces, and (c) the volume of tanker gas replaced by the crude oil loaded.

00113-124: Although the Payne et al. (2002) study estimated a theoretical emission of 105 tons BTEX per year, from the Dissolved Air Flotation Tanks, the emissions from this facility are included in site-wide, permitted emissions. Even including the dissolved air flotation tank emissions, the total BTEX emissions have decreased more than 10-fold since installation of the tanker vapor recovery system in 1998 (see Section 3.13.2.2 for details).

The estimated risk of 3 x 10-5 for the Valdez residential area was only very slightly linked to the emissions from the Valdez Marine Terminal; 90% of the calculated risk was from the 1991 measured ambient benzene level of 4 to 5 ug/m3, as reported in the Valdez Air Health Study (VAHS) by Goldstein et al. (1992). Only 10% of benzene value was considered attributable to Valdez Marine Terminal emissions, so the risk was mainly calculated on the basis of the ambient levels at the time, regardless of their source. The increased lifetime cancer risk for Valdez residential areas due to ambient benzene levels was about 3 x 10-5.

The Valdez ambient air benzene value is similar to, but on the high side of, current ambient benzene values in large U.S. metropolitan areas. For example, the 2001 ambient benzene values in Anchorage, Portland, Chicago, and New York ranged from about 1 to 3.5 ug/m3; the values for Los Angeles ranged from 1 to 5 ug/m3. Ambient benzene concentrations have been decreasing in major cities in the past decade; an EPA study shows a 47% decrease at 95 urban monitoring sites between 1994 and 2000 (http://www.epa.gov/airtrends/toxic.html). EPA attributes the decrease to stricter car emissions standards, required use of cleaner burning gasoline, and standards requiring emission reductions at oil refineries and chemical plants. Based on these data, it is likely that ambient benzene levels in Valdez have also decreased in the time since the 1990/91 air monitoring effort. However, no new ambient air benzene data are available at this time; such data would be useful in estimating potential long term health impacts.

In order to avoid statements on "acceptable" risks, the text in Section 3.17 has been changed.

The protection of VMT workers is regulated under the Occupational Safety and Health Act and is, therefore, beyond the scope of the EIS.

00113-125: The text in Section 4.4.4.7.4 (Impacts from Foodchain Exposures Resulting from Spills to Water) discusses the increased stomach cancer rates of Native Alaskans in comparison with the U.S. white population, and that this may be due to frequent ingestion of smoked foods. The text also states that any additional exposures to PAHs should be avoided where possible.

00113-126: The inset of Section 4.3.9 has been modified.

00113-127: The complex environmental interrelationships associated with the proposed renewal of the TAPS right-of-way coupled with the diversity of reader interests and needs require the assembly of large amounts of information in the EIS. Cross-referencing is a useful tool to avoid duplication while enabling readers with diverse needs to access sections of interest to them.

00113-128: The removal of 27,600 tons per year of VOCs was the amount eliminated by the tanker vapor recovery system and is greater than the current potential VOC emissions form Valdez Marine Terminal. The current potential emissions reflect the reductions made by the tanker vapor recovery system.

The DEIS did not ignore the issue of the BTEX released by the Dissolved Air Floatation (DAF) units of Ballast Water Treatment Facility (BWTF). Benzene and other VOC emissions from the DAF tanks and biological treatment system associated with the BWTF at the Valdez Marine Terminal (about 493 pounds/day or 90 tons/year) are included in the total emissions of HAPs from the Valdez Marine Terminal (about 673 pounds/day or 122.9 tons/year) as listed in Table 3.13-6 of DEIS. Conservatively high ambient concentration estimates of BTEX and other toxic air pollutants emitted from the BWTF and other sources at the Valdez Marine Terminal were considered in estimating potential health impacts associated with ambient concentrations of these pollutants in Valdez area under the proposed action (at the crude oil throughput levels of 0.3, 1.1 and 2.1 million bbl/day) and other alternatives (see Section 4.3.13, 4.5.2.13, and 4.6.2.13). These ambient concentration estimates are based on the ambient BTEX concentrations monitored during the 1990-1991 personal and ambient monitoring studies and the tracer studies conducted in the Valdez area when both the vapor emissions from tankers and the DAF units were released. The baseline ambient concentrations used in the health risk calculations were given in the Affected Environment section (Table 3.17-4); a reference to this table has been added to the footnotes of Table 4.3-4 to clarify.

00113-129: Unfortunately, the apparent inconsistency is a product of separate regulatory definitions that apply. The definition of a hazardous material, hazardous chemical or hazardous liquid often depends on the regulatory context in which it is being discussed. The footnote in Section 4.3 indicates that under Department of Transportation regulations (49 CFR) hazardous liquids include petroleum and petroleum products. In the introduction to hazardous materials management (Section 3.16), the regulatory definition of "hazardous material" is the one promulgated by the Occupational Safety and health Administration (OSHA) in 29 CFR and applied by EPA in its regulations in 40 CFR implementing the Emergency Planning and Community Right-To-Know Act (EPCRA). Crude oil is not discussed as a “hazardous material” because under the Section 313 of EPCRA, crude oil is not considered a hazardous chemical. In addition, under EPCRA, petroleum products in transportation (e.g., traveling in the pipeline) are not being stored or used at the facility and do not have to be reported under the Toxic Chemical Release Inventory (TRI) provisions of EPCRA. However, as shown in Table C-1, the crude oil in storage at the VMT is listed on the EPCRA TRI report (p. C-10, footnote g). Under EPA guidance for Petroleum Terminals and Bulk Storage Facilities, (EPA 745-B-00-002, February 2000), petroleum terminals and bulk storage facilities must determine what EPCRA Section 313 chemicals are present in the products in bulk storage and estimate and report the Section 313 chemicals based on the quantities of crude oil being stored. However, crude oil itself is not a hazardous chemical under Section 313 of EPCRA.

00113-130: The estimated air pollutant emissions from the vehicles used for TAPS operation in 2001 are listed in Table 3.13-5 for various TAPS facilities where vehicles were assigned or the roadway segments where vehicles were used. The assessment of the significance of these emissions is presented in Section 3.13.1.1 (DEIS page 3.13-5).

00113-131: The impacts to highways from TAPS related activities is provided in Section 4.3.11.4.

00113-132: The scaling to various crude oil throughput levels was based on the ambient BTEX concentrations obtained from the ambient data monitored during the 1990-1991 personal and ambient monitoring studies and the tracer studies conducted in the Valdez area when both the vapor emissions from tankers and the DAF units were released. The conditions under which the tracer study was conducted and the study duration will be provided in the FEIS.

00113-133: The rates of HAPs emissions from the crude oil spilled on flowing water (Yukon River at Mile Post 353-354) were not underestimated. The thickness of oil slicks estimated for assumed spills of four frequency ranges (50 bbl - anticipated, 10,000 bbl - likely, 21,246 bbl - unlikely and very unlikely) are very small (approximately 0.08, 0.03, and 1 mm, respectively) and all HAPs contained in the spilled crude oil were estimated to have evaporated in relatively short time periods after spill (e.g., 4 minutes for benzene).

00113-134: The text in Section 4.4.4.6.3 has been revised.

00113-135: In Section 4.6.2.12.2 there is a more in depth discussion of the treatment of purge waters to be flushed through the pipeline and ultimately treated in the VMT. The EIS does not speculate as to the exact technology changes that may have to be implemented to ensure the flushing wastewater is properly treated before discharge to Prince William Sound. Under federal and state regulations, all discharges would have to either meet the current effluent limitations under the NPDES Permit (AK-002324-8) or, if there are any activities that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the current permit, and if that discharge may reasonably be expected to exceed the highest of the "notification levels" listed in the current Permit, the ADEC and the EPA must be notified (AK-002324-8, Section III.L). In addition, under the current Permit, the permit may be modified, or alternatively, revoked and reissued, to address the application of different permit conditions, if new information, such as future water quality studies or waste load allocation determinations, or new regulations such as changes in water quality standards, indicate the need for different conditions (AK-002324-8, Section V.M).

00113-136: The DEIS provides extensive details about ballast water delivered to and treated at the BWTF. Specifically, Appendix C Section C.5 provides substantial details regarding the generation and management of wastewaters throughout TAPS, including the generation and treatment of ballast water in the BWTF at the Valdez Marine Terminal. Table C5 itemizes all the influent wastewaters to the BWTF, including ballast waters.

00113-137: The DEIS did not state that there is a vapor recovery system for the Dissolved Air Flotation (DAF) Tanks.

00113-138: Section 3.1.2.1.8 was intended to provide only a broad overview of the BWTF. See Appendix C for a more in-depth discussion of the BWTF operation. The DAF is discussed in C-5. In response to the remainder of the comment, the text of C.5 has been amended to include the effluent limitations.

00113-139: The effluent limits contained in the NPDES permit have been incorporated into the text of Section C.5.

00113-140: As discussed in the text on page 3.7-11, three arguments are presented that justify the conclusion that pipeline operations have not significantly affected surface water quality along the TAPS ROW. These arguments are: no impaired waters have been linked to pipeline operations, observations by nonprofit organizations have not identified degradation of water quality attributable to TAPS operations, and pipeline discharges are regulated by appropriate discharge permits. The text was changed to state that there have been no comprehensive water quality studies performed along the TAPS ROW since about 1975. The reference to comparisons of water quality along the TAPS ROW to State of Alaska water quality standards or pristine waters was deleted.

00113-141: While we recognize that the PWS RCAC has recommended that NPDES permit levels for the BWTF be reduced, the EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms.

00113-142: While we recognize that the PWS RCAC has recommended that NPDES permit levels for the BWTF be reduced, the EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms.

Instead of stating that BWTF effluent is unlikely to impair sediment quality, the EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts.

00113-143: Dissolved air flotation tanks of the BWTF are mentioned in Section 3.13.1, "Existing Emissions" (Table 3.13-2).

00113-144: The EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts. (See Section 4.3.16.1).

00113-145: The description as it appears is sufficient to describe the current situation with respect to the BWTF. It is understood that facility changes may have been required in response to changes to influent conditions or changes to water quality criteria. It is further understood that future changes may also be necessary. The NPDES permit anticipates this and requires APSC to give notice to EPA and to ADEC when changes to infrastructure or operation procedures are anticipated. This provides the regulatory authorities the opportunity to determine the necessity of amending current permit conditions or even requiring that a new NPDES permit be established.

00113-146: The complex environmental interrelationships associated with the proposed renewal of the TAPS right-of-way coupled with the diversity of reader interests and needs require the assembly of large amounts of information in the EIS. Cross-referencing is a useful tool to avoid duplication while enabling readers with diverse needs to access sections of interest to them.

00113-147: The BTEX emission estimate (105.7 tons/year) for the Valdez Marine Terminal is listed in Table 3.13-6 includes the emissions from the BWTF (90.0 tons/year). The 580 rate of BTEX estimated emissions by Payne et al. (2002) is not the rate of atmospheric emissions from the DAF system. Rather, the value is the mass removal rate by the DAF system, consisting of the amount of BTEX contained in the skimmed oil and the amount released into the atmosphere.

00113-148: Because of their inherent volatility, the chemicals that comprise the BTEX fraction will exhibit a tendency to evaporate to the atmosphere after a spill of crude oil or refined petroleum products. Ambient conditions dictate both the rate and the extent of BTEX evaporation. However, BTEX chemicals also exhibit appreciable solubility or miscibility in water. Thus, competing equilibria are also routinely present at any oil/water interface that would allow some BTEX fraction to be extracted into the water phase. Because BTEX chemicals are easily identified in water samples, surface or groundwaters impacted by a spill are routinely monitored for the presence of BTEX fractions as an indicator of the extent to which components of the spilled material have migrated from the spill site.

The environmental fate of BTEX fractions is, indeed, important from the perspective of exposures of spill response workers to the BTEX chemicals. The potential for carcinogenic and other health effects due to exposures to BTEX compounds is addressed in Sections 3.17.2.4 and 4.3.13.2.2. A reference to these sections has been added to the inset. Finally, although "fingerprinting" can sometimes be done with sufficient precision to identify the source of a spill among many potential sources, it can also be used in a less rigorous way to track migration of spilled petroleum. It was the intent of the inset to show that potential. The text of the inset has been modified to eliminate any confusion.

00113-149: In Section 4.6.2.12.2 there is a more in-depth discussion of the treatment of purge waters to be flushed through the pipeline and ultimately treated in the VMT. The EIS does not speculate as to the exact technology changes that may have to be implemented to ensure the flushing wastewater is properly treated before discharge to Prince William Sound. Under federal and state regulations, all discharges would have to either meet the current effluent limitations under the NPDES Permit (AK-002324-8) or, if there are any activities that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the current permit, and if that discharge may reasonably be expected to exceed the highest of the "notification levels" listed in the current Permit, the ADEC and the EPA must be notified (AK-002324-8, Section III.L). In addition, under the current Permit, the permit may be modified, or alternatively, revoked and reissued, to address the application of different permit conditions, if new information, such as future water quality studies or waste load allocation determinations, or new regulations such as changes in water quality standards, indicate the need for different conditions (AK-002324-8, Section V.M).

Although seawater (e.g. ballast water) and unspecified cleaning agents are already permitted influents under the current NPDES permit (see Table C-5), the scale of the pipeline flushing effort and the volumes of rinsates generated would no doubt trigger the notification requirements in the permit. Such notifications would also specify any changes to treatment technologies that are being proposed. This notification would allow the regulators the opportunity to concur in any proposed alternative treatment methodologies and further amend the permit or revoke it and reissue a new permit to more comprehensively address pipeline flushing activities. Changes have been made to the text of Section 4.6.2.12.2 to reflect the concerns raised in the comment.

00113-150: Treated ballast water is included in the industrial wastewater category already listed.

00113-151: Instead of stating that BWTF effluent is unlikely to impair sediment quality, the EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts (Section 4.3.16.1).

00113-152: The EIS correctly identifies that BWTF discharges are below current NPDES permit limits. The discharge limits in the NPDES permit, as well as the actual discharges reported by APSC to the EPA are displayed in Appendix C, Section C.5.

00113-153: The best available estimates of future production and transport of oil by TAPS indicate declining throughput. That being said, the EIS recognizes that there is a range of possibilities and assesses the bounding impacts associated with a range of throughput. This range included throughput up to historical high values. It should be noted that development and production of oil is not considered to be reasonably foreseeable in the current legal environment; thus oil development and production in ANWR was not included in the cumulative impact assessment in Section 4.7.

00113-154: The EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments.

00113-155: No change was made to Section 4.3.8.3.

00113-156: The EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms.

Instead of stating that BWTF effluent is unlikely to impair sediment quality, the EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts.

00113-157: While we recognize that the PWS RCAC has recommended that NPDES permit levels for the BWTF be reduced, the EIS correctly identifies that BWFT discharges are below current NPDES permit levels and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms. As identified in the comment, PAH accumulation was detected in mussels used to monitor water quality in Port Valdez as part of a PWS RCAC-sponsored monitoring program (Salazar et al. 2002). In that study, it was found that all measured concentrations of PAHs in water and estimated on the basis of bioaccumulation in mussel tissues indicated that the concentrations of PAHs in Port Valdez waters are in the low parts-per trillion range, well below the levels that have been associated with adverse effects in herring and salmon embryos (Salazar et al. 2002). In addition, Salazar et al. (2002) did not detect reduction in overall growth of caged mussels that could be attributed to PAH burdens. Instead of stating that BWTF effluent is unlikely to impair sediment quality, The EIS was revised to state that sediment concentration of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts. See Section 4.3.16.1

00113-158: The DEIS does not speculate as to the exact technology changes that may have to be implemented to ensure that the decreased influent associated with double-walled tankers does not impact the operation of the BWTF. Under federal and state regulations, all discharges from the BWTF would have to either meet the current effluent limitations under the NPDES Permit (AK-002324-8) or, if there are any activities that would result in the discharge (on a routine or frequent basis) of any toxic pollutant that is not limited in the current permit, and if that discharge may reasonably be expected to exceed the highest of the “notification levels” listed in the current Permit, the ADEC and the EPA must be notified (AK-002324-8, Section III.L). In addition, under the current Permit, the permit may be modified, or alternatively, revoked and reissued, to address the use of alternative treatment technologies or the application of different permit conditions, if new information, such as future water quality studies or waste load allocation determinations, or new regulations changing water quality standards, show the need for different conditions (AK-002324-8, Section V.M).

00113-159: Steller's eiders have been occasionally reported in Prince William Sound, but not Port Valdez. Significant impacts of routine operations of the Valdez Marine Terminal and associated permitted discharges into Port Valdez are not expected to have an effect on this species.

The work of Payne et al. has been very useful in identifying the significance of the risks of effluent discharge from the Ballast Water Treatment Facility on aquatic organisms in Port Valdez. These studies have demonstrated that the effluent poses no risk or very low risk to the species examined. Recently, Payne et al. have hypothesized the potential for higher risks associated in the surface microlayer of the water column. Until data are available regarding actual concentrations in this layer, it would be speculative to characterize the associated risk.

00113-160: The EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms.

Instead of stating that BWTF effluent is unlikely to impair sediment quality, the EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts.

00113-161: Section 4.4.4.10.2 includes an analysis of potential impacts associated with 143,000 bbl of crude oil entering Port Valdez at the Valdez Marine Terminal due to a catastrophic rupture of a crude oil storage tank. We concluded that fish in deeper areas had a lower likelihood of being harmed by such a spill, but fish and invertebrates in nearshore and intertidal areas that could become oiled (estimated at up to 2 miles from the source) were at risk and that such an oil spill could affect returning adult salmon or out-migrating juvenile salmon. The discussion in Section 4.4.4.10.2 of the effects of the Exxon Valdez oil spill on fish resources has been expanded to include additional citations and to include additional information about potential effects of oil on salmon and other aquatic resources. While there is general discussion of the potential impacts of spilled oil, the evaluation of the potential effects of specific tanker spills remains outside the scope of the proposed action. However, tanker spills are considered as part of the cumulative action discussion in Section 4.7.7.2.4. The conclusion was that large marine spills resulting from a tanker accident could have large impacts on fish and other marine organisms. Additional discussion and citations pertaining to effects of oil on fish resources have been added to Section 4.4.4.10.

00113-162: The discussion in Section 4.4.4.10.2, to which readers are referred for information about the effects of the Exxon Valdez oil spill on fish resources, has been expanded to include additional citations and to include additional information about sublethal effects of oil.

00113-163: Section 3.11.3 discusses the possible origins of hydrocarbons in Port Valdez and PWS and the current scientific debate on this subject.

The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms. Instead of stating that BWTF effluent is unlikely to impair sediment quality, the EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts.

00113-164: The low effect level cited is from the referenced literature.

The discussion of the Exxon Valdez oil spill is included in the document as background and to describe the environment that could potentially be affected by future pipeline operations. It is not meant to be an exhaustive treatment and does not attempt to list or quantify the impacts caused by the Exxon Valdez oil spill. Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10 and the discussion in Section 4.4.4.10.2 of the effects of the Exxon Valdez oil spill on fish resources has been expanded and includes additional citations. Discussion of observed and potential effects of oil on infaunal and epifaunal invertebrates has also been added.

00113-165: A short discussion of infaunal and epifaunal invertebrates that serve as food for fish has been added to Section 3.19.1. Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10 along with a discussion of observed and potential effects of oil on infaunal and epifaunal invertebrates.

00113-166: While we recognize that the PWS RCAC has recommended that NPDES permit levels for the BWTF be reduced, the EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms. As identified in the comment, PAH accumulation was detected in mussels used to monitor water quality in Port Valdez as part of a PWS RCAC-sponsored monitoring program (Salazar et al. 2002). In that study, it was found that all measured concentrations of PAHs in water and estimated on the basis of bioaccumulation in mussel tissues indicated that the concentrations of PAHs in Port Valdez waters are in the low parts-per-trillion range, well below the levels that have been associated with adverse effects in herring and salmon embryos (Salazar et al. 2002). In addition, Salazar et al. (2002) did not detect reductions in overall growth of caged mussels that could be attributed to PAH burdens. Instead of stating that BWTF effluent is unlikely to impair sediment quality, Section 4.3.16.1 of the EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts.

00113-167: Table 2-1 has been revised. However, the table does not address the analytical methods used to draw conclusions. Methods are either discussed in the text or in the referenced materials. The shellfish tissue data used in the EIS to support risk calculations were those reported in Varanasi et al. (1993), a research group from the National Oceanic and Atmospheric Administration (NOAA). The discussion of "Method Shortcomings" in Payne et al. (2002) states that the NOAA methods are the preferred methods for analysis of hydrocarbons in tissues. The fish and shellfish tissue analytical data used were produced by a very credible institution and were published in peer-reviewed sources (see EIS references in Sections 3.30 and 4.9).

00113-168: It means that the eight-hour and 24-hour concentration values listed are the highest running averages. The text has been clarified in the footnote to Table 3.13-11.

00113-169: Only the population of Zook subdivision of City of Valdez is provided because this subdivision is closest to the Valdez Marine Terminal and, therefore, potential impacts, if any, of the noise generated from sources at the Valdez Marine Terminal would be the highest. All other subdivisions are further away and, therefore, potential impacts due to noise sources at the Valdez Marine Terminal at these subdivisions would be less.

00113-170: Effluents from the Ballast Water Treatment Facility are discussed in Section 4.3.13.2.1 of the DEIS, based on data from the Mixing Zone Application for NPDES Permit Renewal (APSC 1995, as cited in the section).

The mussel tissue PAH concentrations reported in Payne et al. (2001) are total PAH concentrations. No human health risk assessment for ingestion of mussels is provided in that report. The total PAH concentrations also cannot be directly compared with the carcinogenic PAH concentrations measured by NOAA and reported in the EIS for the assessment of foodchain impacts from oils pills (Section 4.4.4.7.4). The total PAH concentrations measured by NOAA were much higher, comparable to the Payne et al. data. However, for the type of risk analysis conducted for the EIS, only the carcinogenic PAH concentration would be relevant.

00113-171: Harvey 2002 (Valdez Marine Terminal Air Quality Oversight Project Phase I), reviews the permitted emissions from the VMT. An 86% decrease in hazardous air pollutant emissions since the installation of vapor emission controls for the marine vessel loading facilities in the mid-1990s is reported in Harvey (2002). This information is in agreement with information on emissions reported in the EIS (see Section 3.13.2.2).

For the EIS, the risk results of the Goldstein et al. 1992 Valdez Air Health Study (see Section 4.9 of the FEIS for reference) were not used to draw conclusions on risk levels. The EIS used only data from the study on maximum measured ambient concentrations of the most hazardous VOCs at the VMT fenceline and in Valdez residential areas. These data were used as input for independent risk calculations using conservative (i.e., high) exposure assumptions. For example, it was assumed that exposure would be 24 hours per day for a 70 year lifetime, and that a residence could be located at the VMT fenceline.

The estimated risk in Valdez residential areas of 3 x 10-5, based on 1991 data, was only very slightly linked to the findings of the tracer study. In the Valdez Air Health Study (VAHS) by Goldstein et al. (1992—see Section 3.30 for reference), the annual average ambient benzene concentration at 3 Valdez residential area monitoring locations ranged from 4 to 5 ug/m3 (based on hourly sampling for one year from Nov 1990 through Oct 1991). Because the VAHS concluded that only 10% of the residential area benzene concentration was contributed by Valdez Marine Terminal emissions, only 10% of the ambient level was scaled with projected future throughputs. Therefore, the actual range of residential area benzene concentrations assumed for varying throughputs in the risk calculations was very narrow, from 4.6 to 5.1 ug/m3 (corresponding to increased cancer risks of from 3.0 to 3.2 x 10-5, see Table 4.3-4).

The Valdez ambient air benzene value is similar to, but on the high side of, current ambient benzene values in large U.S. metropolitan areas. For example, the 2001 ambient benzene values in Anchorage, Portland, Chicago, and New York ranged from about 1 to 3.5 ug/m3; the values for Los Angeles ranged from 1 to 5 ug/m3. Ambient benzene concentrations have been decreasing in major cities in the past decade; an EPA study shows a 47% decrease at 95 urban monitoring sites between 1994 and 2000 (http://www.epa.gov/airtrends/toxic.html). EPA attributes the decrease to stricter car emissions standards, required use of cleaner burning gasoline, and standards requiring emission reductions at oil refineries and chemical plants. Based on these data, it is likely that ambient benzene levels in Valdez have also decreased in the time since the 1990/91 air monitoring effort. However, no new ambient air benzene data are available.

00113-172: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's employee concerns program (ECP) and that APSC has undertaken considerable efforts to improve and refine their ECP program. The BLM and JPO expects to continue to evaluate the effectiveness of APSC's ECP through confidential survey that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, this effort can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

Safety-related concerns and allegations that have been raised in the past by TAPS workers include National Electrical Code (NEC) compliance, work order initiation, unqualified workers, and insufficient inspection. Text has been added to clarify JPO's recent conclusions regarding the requirement for APSC to immediately abate any health or safety hazards, including those raised by employee concerns.

00113-173: The comment says the DEIS incorrectly assumes that VOC emissions are negligible for about 24 hours after a spill. This is exactly the opposite of what the EIS analyses and supporting text actually assume, which is that "VOC emissions from a crude oil spill are generally negligible about 24 hours after the initial spill." In effect, this meant that the analyses estimated the highest concentrations that would occur in the first 24 hours after a spill, and compared these with health risk-based short-term concentrations limits. Since air concentrations after 24 hours would be less, this was a protective evaluation method.

With respect to foodchain impacts, the extensive text of section 4.4.4.7.4 provides support for the statement that, for food that is not noticeably contaminated, adverse health effects would not be expected from eating fish, shellfish, or marine mammals from a spill area. For fish and mammals, this conclusion is reached on the basis of rapid and extensive metabolism of PAH compounds by these species, so that concentrations in edible tissues are generally non-detectable or very low within a short time after the exposure occurs. Shellfish, however, do not metabolize the PAH compounds, and therefore could more plausibly present increased cancer risk for individuals regularly ingesting shellfish meals. This increased cancer risk was evaluated using data from references suggested in the comment (i.e., Varanasi et al. 1993; Field et al. 1999—see Section 3.30 of the FEIS for references). Although the U.S. FDA had previously evaluated the increased cancer risk associated with contaminated shellfish ingestion, a re-analysis of the data was conducted for the EIS incorporating newer risk factors that would increase the risk estimates. The conclusion was that the highest possible increased cancer risk from ingestion of contaminated shellfish was somewhat less than the lower bound of increased cancer risk from ingestion of smoked salmon (see Table 4.4-35). The speciation of the PAHs associated with the smoking process is not significant for this analysis, because only the 15 PAHs listed in Footnote 'a' of Table 4.4-35 have enough available toxicity data to include in a quantitative risk evaluation.

The text in Section 4.4.4.7 discusses the increased stomach cancer rates of Native Alaskans in comparison with the U.S. white population, and that this may be due to frequent ingestion of smoked foods. The text also states that any additional exposures to PAHs should be avoided where possible.

00113-174: Although the protection of cleanup workers is regulated under the Occupational Health and Safety Act and is, therefore, beyond the scope of the EIS, potential public health impacts from spills are evaluated in the EIS. In particular, Section 4.4.4.7.2 assesses the potential for adverse health impacts resulting from inhalation of contaminants volatilized from spills along the pipeline, spills at the Valdez Marine Terminal, spills during transportation accidents, and spills to rivers along the pipeline.

00113-175: Considering the spill magnitudes assumed in the assessed EIS spill scenarios along with the relatively slow rates of evaporation, it is likely the spill response team would have sufficient time to limit any significant evaporation levels of heavy crude components after 24-hours.

00113-176: It is agreed that cleanup workers could experience adverse health impacts if PPE is not used during cleanup operations, particularly within the first 24 hours after a spill occurs. If spills occur in the future (particularly large volume spills), a procedure to address the concerns expressed in the comment could be to monitor ambient air to determine when concentrations of toxic air pollutants have fallen below health-based levels of concern.

As a point of clarification, in Section 4.4.4.7 of the EIS, the text states that some former EVOS cleanup workers claim that oil and solvent exposures resulted in adverse health impacts, and that "out of 15,000 workers involved in the cleanup, 25 have filed suit for damages." It is beyond the scope of the EIS to determine whether the EVOS cleanup activities caused adverse health impacts in individual cleanup workers.

00113-177: The assumptions used to model a spill of approximately 143,450 barrels (6 million gallons) into Port Valdez were based on a scenario considered in the "Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan, CP-35-2, 4th Ed., Rev. 2 (July 2001)". This contingency plan addressed a Scenario 5 (pages 589 through 597), which specified the assumption of a 1.6 gal/ft^2 oil thickness on the surface of the water. Section 4.4.4.7.2 of the EIS assesses the impacts from inhalation exposures resulting from spills. For the assessment of inhalation impacts of spills into surface waters (e.g., Port Valdez), assumptions on the surface area of the spill on water are needed to estimate volatilization and air concentrations; therefore, a higher amount of volatilization was estimated by assuming the entire spill volume was contained by booms within two hours (that is, the estimated air concentrations and inhalation impacts were maximized using this assumption). Section 4.4.4.5.4 of the EIS (Physical Marine Environment Spill Impacts) also addressed the overall impacts of this hypothetical large oil spill into Port Valdez. This section estimated that 2 miles of shoreline at the VMT would be heavily oiled by such a spill, and also discussed the possibility that not all the oil would be contained within 2 hours, resulting in a larger area being impacted.

00113-178: See Appendix A, “Methodology Descriptions,” in the EIS, which describes the methodologies used to analyze the environmental consequences of implementing the alternatives presented in the EIS, including the formulation and development of spill scenarios, even “worst case” scenarios.

00113-179: There is no evidence to suggest that current stockpiles of Halon at APSC are insufficient to maintain the Halon-based fire suppression system. However, APSC has a continuing responsibility under Grant Stipulations to maintain critical subsystems of the TAPS in operable condition, and the adequacy of those systems is subject to review and evaluation by JPO through its oversight authority. When conditions are such that the current fire suppression systems cannot be maintained, JPO will require APSC to submit a work plan for transition to alternative fire suppression strategies. See also the text box in Section 4.3.13.1.3.

00113-180: The history and current status of issues relating to electrical system controls and fire safety were summarized in Section 4.3.13.1. JPO has monitored this issue and additional details can be found in their reports, which are also cited in the EIS. BLM and JPO are committed to ensuring the APSC continues to take aggressive steps in continuing compliance with the National Electrical Code and in rapidly resolving any other fire safety issues that may remain at the terminal. One issue that may that may still remain which was identified in an RCAC requested fire safety review for the terminal dealt with concerns about the level or adequacy of fire protection at berths 4 and 5. As a part of the safety review a fire protection engineering study was recommended (Slye and Semenza 2001—see Section 4.9 of the FEIS for reference). Resolution of issues pertaining to the specific type, form, and level of oversight review that might be required to address specific fire safety issues would be outside the scope of this EIS. These issues would be more appropriately handled by reviewing agencies with the appropriate oversight (e.g., JPO member agencies). These agencies would be much better suited to review the adequacy of existing fire fighting response capabilities and in providing recommendations, as necessary, to correct any deficiencies.

00113-181: As described in Section 4.5.1.2.2 of the EIS, the spill volume in a guillotine break scenario is estimated on the basis of two considerations: (1) the dynamic volume, which makes up the quantity of oil that would be pumped through the break until the pumps upstream are shut down and the mainline valves are closed, and (2) the static volume, which could result from oil draining from the pipeline if the break occurred at a relatively low elevation. The dynamic volume is proportional to the throughput whereas the static volume is dependent on the location of the break. Check valves that were placed strategically at various locations in the pipeline when it was constructed close automatically to limit the amount of backflow from higher elevations downstream from the break location. Both components of the spill were considered when the spill volumes were calculated for the guillotine break scenarios discussed in Sections 4.4.1 of the EIS. Calculations were performed for thousands of locations along the pipe. The largest volume estimated to be released was approximately 54,000 barrels. The spill volume for most areas along the pipe was much less than that amount.

00113-182: As indicated in response to the previous comment (Response 113-181), the estimates for spilled oil volume from a guillotine break scenario take into account both the dynamic and the static volume. The static volume is dependent on the location of the break, in particular, its elevation in relation to upstream and downstream along the pipe. The plans are to respond to any amount of spill irrespective of the location and the volume of the spill.

00113-183: Major spill response equipment available along the TAPS is summarized in Table 3.1-6 in the EIS. Detailed information on equipment available and procedures in place at various locations along the pipeline is given in the TAPS Oil Discharge Prevention and Contingency Plan (CP-35-1) (APSC 2001g), which is available to the public through various libraries in several major cities in Alaska, including Anchorage, Fairbanks, and Valdez.

00113-184: Involvement of the PWS RCAC in the development of APSC's new response system and training activities is briefly described in Section 3.1.2.2.1 of the EIS. Citations to various studies conducted previously by RCAC and other organizations on EVOS and potential effects of oil spills in PWS are provided throughout the EIS as appropriate.

The current text in Section 4.4.4.5.4 acknowledges the possibility that the spill may not be contained, due to inclement weather or other unforeseen circumstances. Under those conditions, the text notes that the impacts would be significant.

00113-185: Involvement of the PWS RCAC in the development of APSC's new response system and training activities is briefly described in Section 3.1.2.2.1 of the EIS. Citations to various studies conducted previously by RCAC and other organizations on the Exxon Valdez oil spill and potential effects of oil spills in PWS are provided throughout the EIS as appropriate.

00113-186: Depending upon the timing and the quantity of oil, it is true that major impacts could occur to salmon in the Copper River if a substantial amount of oil from a pipeline break were to reach the Copper River. Spills into the Gulkana and the Tazlina Rivers (both tributaries of the Copper that are crossed by the TAPS) were considered as part of the spill scenario analyses in Section 4.4.4.10.1. Text has been added to Section 4.4.4.10.1 to reiterate the importance of the Copper and Lowe Rivers for salmon production in the area and to recognize the potentially severe impacts to salmon in the event of a large spill entering those rivers.

00113-187: Major spill response equipment available along the TAPS is summarized in Table 3.1-6 in the EIS. Detailed information on equipment available and procedures in place at various locations along the pipeline is given in the TAPS Oil Discharge Prevention and Contingency Plan (CP-35-1) (APSC 2001g), which is available to the public through various libraries in several major cities in Alaska, including Anchorage, Fairbanks, and Valdez.

00113-188: As discussed in Section 4.4.4.3.2, oil would affect surface water and adjoining beds and banks. These impacts are discussed qualitatively because quantitative analyses would require a great deal of site- and time-specific information not available until an actual release occurs. However, impacts to the river system would be major in the case of a catastrophic guillotine break that releases crude oil directly to a river or stream.

Cleanup efficiencies were not quantified in the EIS because of site- and time-specific input parameters that would not be known until a spill occurred. Rather, efficiency was equated to the ability of the response team to arrive at an appropriate containment site and deploy their equipment prior to the arrival of the leading edge of the spill. Even under ideal conditions, it is unlikely that 100% of the spilled oil could be recovered because of such factors as high velocity water, turbulence, sediment load, ice, dissolution, etc. Additional text to clarify the difference between capture and subject-to-capture efficiencies has been added to Section 4.4.4.3.2.

00113-189: Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10. Discussion of observed and potential effects of oil on infaunal and epifaunal invertebrates has also been added to Section 4.4.4.10.

00113-190: The Exxon Valdez oil spill is not known to have caused groundwater contamination. There are definitely still some areas of beaches and mussel beds that are contaminated from the Exxon Valdez oil spill. This remaining contamination was acknowledged in Section 4.4.4.7, and was used as justification for assuming a prolonged potential exposure period of from 10 to 70 years for the subsistence ingestion risk that was assessed. However, it is actually highly unlikely that a single individual would ingest mussels from a single contaminated area (or even several contaminated areas) over such a long time period.

00113-191: The requested comparison of the static and dynamic spill volumes with historical spill events is provided in Section 4.4 of the EIS (see, for example, Table 4.4-1 and Map 4.4-1). Footnote 3 refers the reader to Section 4.4.

00113-192: The Transient Volume Balance leak detection system is briefly described in Section 4.1.2.9.3 of the EIS. More detailed information on the TVB system can be found in Section 3.1.8.3.2 of the TAPS Oil Discharge Prevention and Contingency Plan (CP-35-1) (APSC 2001g—see Section 3.30 of the FEIS for reference), which is available during public review periods through various libraries in several major cities in Alaska, including Anchorage, Fairbanks, and Valdez.

00113-193: With the notable exception of contingency planning, neither the Grant/Lease nor applicable federal or state regulations speak directly to TAPS management procedures, except to clearly establish that it remains APSC's responsibility to develop and implement management systems that are sufficient to satisfy performance standards contained in grant stipulations or applicable regulations or permits. However, it is important to note that the JPO's oversight function looks not only at the conditions of TAPS systems, but also evaluates the adequacy and completeness of attendant management systems, including efforts to repair deficiencies. Comprehensive monitoring reports issued by the JPO not only discuss certain aspects of TAPS from engineering or compliance perspectives, but also include root cause analyses of identified deficiencies. Such analyses can extend to an evaluation of resources, as well as personnel training. That said, however, APSC retains the primary responsibility for providing adequate resources (including appropriately trained personnel) necessary for safe TAPS operations. It is within the JPO's authority to ask APSC to demonstrate the adequacy of its resource commitments, especially in the face of identified deficiencies and the appropriateness of its management procedures; but it is beyond JPO authority, and indeed inappropriate, for the JPO to dictate levels and types of resource commitments or specific operating procedures that must be followed or to assume responsibility for developing TAPS management systems. Evaluations of adequacy or execution of extant management systems are also outside the scope of this EIS.

00113-194: As discussed in Section 4.4.4.3.2, the physical size of a contaminated zone would be larger than the length of a plug-flow slick because of hangup along the flow path, mixing, entrainment, and remobilization. Without detailed site and time-specific information on the receiving water and weather, such calculations can not be credibly performed. Rather, the plug-flow assumption was made to highlight the potential differences between spills of long and short duration.

00113-195: Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10. Discussion of observed and potential effects of oil on infaunal and epifaunal invertebrates has also been added to Section 4.4.4.10.

00113-196: The spill prevention and response measures employed at the VMT are described briefly in Section 4.1.4.2 of the EIS. Details on the equipment available and procedures in place are given in the Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan (CP-35-2) (APSC 2001h), which is available to the public through various libraries in several major cities in Alaska, including Anchorage, Fairbanks, and Valdez, when the plans are under public review prior to ADEC approval.

00113-197: The spill prevention and response measures employed at the VMT and the PWS are described briefly in Sections 4.1.4.2 and 4.1.4.3 of the EIS, respectively. Details on the equipment available and procedures in place are given in the Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan (CP-35-2) (APSC 2001h) for the VMT and the Prince William Sound Oil Discharge Prevention and Contingency Plan (Prince William Sound Tanker Plan Holders 1999) for the PWS. Both documents are available to the public through various libraries in several major cities in Alaska and are sent directly to the PWS RCAC during the time of plan review. The EIS acknowledges that the booms may not contain all the oil spilled. In fact, Section 4.4.4.5.4 states that if assumptions are not met, a larger area could be affected or larger impacts could occur.

00113-198: The referenced sentence in Section 4.1.4.3 has been revised to clarify the approval process regarding the use of dispersants in PWS spill response. The substantive elements of the PWS Contingency Plan are directed by Alaska regulations. Those rules also require that the Plan undergo routine review and updating and provide for public comment within the context of that review process.

00113-199: The spill prevention and response measures employed at the VMT are described briefly in Section 4.1.4.2 of the EIS. Details on the equipment available and procedures in place are given in the Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan (CP-35-2) (APSC 2001h), which is available to the public through various libraries in several major cities in Alaska, including Anchorage, Fairbanks, and Valdez at times the plan is subject to public review.

00113-200: The EIS has been revised to include additional discussion addressing impacts of oil transportation beyond Prince Williams Sound into the Gulf of Alaska and the Pacific Ocean, including impacts on wildlife and marine resources.

00113-201: The use of dispersants in response to spills of crude oil or petroleum products into PWS is addressed in detail in the PWS contingency plan. The elements of that plan are discussed in Section 4.1.4.3.

00113-202: Tanker routes through the Hinchinbrook Entrance to Prince William Sound are part of the cumulative analysis, although they are not part of TAPS.

00113-203: Analysis of the economic impacts of renewal used throughput rates based on forecasts of annual production by DOE-EIA. The forecasts include anticipated production from fields currently producing oil, production from anticipated development of identified fields and production from technically recoverable but as yet undiscovered oil resources. As there are probabilities associated with production in each category, there is a bounding range for production in each year. The mean value of all potential production in each category was used in the analysis. Included in the evaluation was production from existing producing and developing fields, and additional oil from the Prudhoe Bay/Central Area Northeast NPR-A and West NPR-A. Based on these forecasts, production levels are expected to increase slightly between 2000 and 2005, and begin a steady decline over the remainder of the renewal period. Tanker traffic and the demand for tankers are likely to decline correspondingly.

In order to include the impact of different production levels due to physical factors (recovery success rates), and economic factors (changes in world oil prices and pipeline transportation costs), the analysis of changes in throughput rates was included in the EIS (see Section 4.3.19.4.1). Impacts of throughput at the 5% and 95% probability levels from the DOE-EIA forecasts were used to provide and upper and lower bound for the impacts of production levels different from those in the mean forecast.

For marine transportation-related spills, the TAPS throughput primarily affects the estimated spill frequency (the expected outfall is primarily a function of the vessel type and oil capacity). Thus the impacts of increased crude oil throughput would only be observed in the frequency of a given spill scenario.

The spill analysis computed frequencies for each scenario and each scenario was assigned a likelihood category (i.e., anticipated, likely, unlikely, and anticipated). An increase in the TAPS throughput by a factor of two to three from current levels would not result in an increased frequency such that a scenario would shift from one frequency category to another. Thus the effect of increased throughput would be minimal.

00113-204: Tanker speed is limited on the basis of analyses performed in the development of PWS contingency plans. See the text box in 4.7.4.10.4.

00113-205: SERVS and tanker operations are discussed briefly in this section. As noted, the U.S. Coast Guard has the authority to make decisions regarding tanker operations. As noted in the text, depending on the type of operation and existing conditions, tanker operations can be restricted.

00113-206: Oil spills are discussed in Section 4.4 of the EIS.

00113-207: The EIS analyzes three throughputs. Three flow rates were considered: 300,000, 1.1 million, and 2.1 million barrels per day. Depending on the throughput, the number of tankers at the VMT could either increase or decrease as stated in the text. No text change is required.

00113-208: The EIS reported a total of 26 tankers, which is composed of 10 tankers operated by the Alaska Tanker Company, LLC; 8 tankers operated by Polar Tankers, Inc.; 6 tankers operated by SeaRiver Maritime Inc.; and 2 tankers operated by Seabulk International Inc. The list of tankers was based upon data provided by the Alyeska Pipeline Service Company and confirmed using information collected by the British Columbia Oil Spill Task Force Prevention Project (available at http://www.ecy.wa.gov/programs/spills/prevention/bap/TAPS%20Trade%20Tanker%20Report.htm).

The estimate of 8 to 10 tankers by 2020 is based upon a reduced TAPS throughput of 0.72 million barrels per day, lower than the current value of about 1 million barrels per day. As such, the annual number of tanker calls at the VMT is estimated to decrease from a value of 496 (of which 38% are double-hull tankers) to 283 tanker calls in 2020 (of which 100% are double-hull tankers).

00113-209: The active sites are sites that require continuous assessment, monitoring, or remediation. All assessment, monitoring or remediation activities are under the oversight of the Alaska Department of Environmental Conservation (ADEC) and occur in accordance with the provisions of an ADEC site-specific remediation plan. An active site can become a closed site only after the regulators of ADEC concur that the site presents little to no risk to human health or the environment and does not need further remediation. It is outside the scope of EIS to specify the need for continuing mitigation of the active sites.

00113-210: A discussion on historical groundwater contamination at the contaminated sites and ongoing cleanup activities is presented in Section 3.8. Impacts of direct spills to groundwater are discussed in Section 4.4.4.4. Because spills to the surface would produce less severe impacts to groundwater than a direct release to an aquifer, indirect spills to groundwater are not analyzed in the document.

00113-211: The DEIS text was revised in Section 3.8 to discuss groundwater conditions and cleanup at the VMT, and the text was changed to discuss a spill event that eventually led to oil reaching the Atigun River. Additional details were also provided in Section 4.1.1.8 on the MP 400 spill recently caused by a rifle shot .

As discussed in Section 3.7.2.5, water quality impacts have not significantly affected streams or rivers as inferred from observations by nonprofit organizations, a lack of ADEC defined impaired water that can be attributed to pipeline operations, and regulation by appropriate NPDES permits.

00113-212: An error in Table 3.8-4 was corrected. The Check Valve 92 site is rated as medium priority; the others are all high priority (See Table 3.3-1). The DEIS describes conditions at these sites and discusses remediation activities taking place. It is beyond the scope of the DEIS, however, to address permanent solutions to these groundwater clean-up problems.

00113-213: The definition of a hazardous material, hazardous chemical or hazardous liquid often depends on the context and the regulatory scheme being applied. The footnote to Section 4.3.9.2 indicates that, under Department of Transportation regulations, hazardous liquids include petroleum and petroleum products. In the introduction to hazardous materials management (Section 3.16), crude oil is not discussed as a “hazardous material” because under the Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), crude oil is not considered a hazardous chemical. In addition, under EPCRA, petroleum products in transportation (e.g., traveling in the pipeline) are not being stored or used at the facility and do not have to be reported under the Toxic Chemical Release Inventory (TRI) provisions of EPCRA. However, as shown in Table C-1, the crude oil in storage at the VMT is listed on the EPCRA TRI report (p. C-10, footnote g). Under EPA guidance for Petroleum Terminals and Bulk Storage Facilities, (EPA 745-B-00-002, February 2000), petroleum terminals and bulk storage facilities must determine what EPCRA Section 313 chemicals are present in the products in bulk storage and estimate and report the Section 313 chemicals based on the quantities of crude oil being stored. However, crude oil itself is not a hazardous chemical under Section 313 of EPCRA.

00113-214: The definition of a hazardous material, hazardous chemical or hazardous liquid often depends on the context and the regulatory scheme being applied. On page 4.3-18 the footnote indicates that under Department of Transportation regulations hazardous liquids include petroleum and petroleum products. In the introduction to hazardous materials management (Section 3.16), crude oil is not discussed as a "hazardous material" because under the Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), crude oil is not considered a hazardous chemical. In addition, under EPCRA, petroleum products in transportation (e.g., traveling in the pipeline) are not being stored or used at the facility and do not have to be reported under the Toxic Chemical Release Inventory (TRI) provisions of EPCRA. However, as shown in Table C-1, the crude oil in storage at the VMT is listed on the EPCRA TRI report.

The assessment described in Section 4.4.4.7.2 was based on hazardous materials in storage at TAPS facilities, as reported by APSC to state and federal planning authorities (see Section 3.16.1 and Appendix C). The VMT reported having up to 28,000 lb ethylene glycol (often the main toxic component of antifreezes and coolants) in storage; antifreeze was reported as being in storage at many other TAPS facilities. Although ethylene glycol is categorized as potentially toxic for the spill assessment (TEEL-1 value = 50 mg/m3), it is not very volatile, so risks to the general public from accidental releases is low.

As discussed in Appendix C (Section C.3), APSC contractors collect hazardous waste from the accumulation areas and transport it to out-of-state RCRA-permitted TSDFs. The waste is shipped under proper manifests to a rail terminal in Anchorage and then by rail to a ship terminal in Anchorage, where it is transported by ship or barge to a rail yard in the State of Washington. According to these manifests, all of the transporters are properly licensed under RCRA and all wastes are transported in containers meeting DOT specifications. No spills or losses of APSC hazardous waste shipments have ever been reported (e.g., no exception reports for APSC manifested waste shipments between APSC facilities and the ultimate RCRA TSDF have been filed with the ADEC).

Spills of hazardous waste were not specifically assessed, because it was assumed that these wastes would be more dilute than the hazardous materials stored for use at the TAPS facilities, and that therefore spills of these substances would result in lower health impacts.

00113-215: The management of contaminated debris is discussed in more detail in Appendix C. The size of the contaminated soil stockpiles is dependent on the amount generated each year. As stated in Appendix C, soil can be stockpiled at the Valdez Marine Terminal for up to four years or until sufficient volumes have been aggregated to allow for cost-effective transport to a subcontractor for thermal treatment, most recently, to a facility located in North Pole, Alaska.

Air emissions from contaminated soil piles were incorporated into the air impact analyses for APSC facilities. However, once the contaminated soils are removed by the contractor and go out of APSC control, the subsequent management and any related environmental impacts related to soil treatment and disposal are addressed by the permit under which the treatment/disposal facility operates and are not within the scope of the EIS. The text of Section 3.16.5 has been revised to remove the confusion represented in the comment.

00113-216: The factors listed in the comment were identified by Kruse et al. as possible explanations for the decline that occurred in the 1970s to 1980s. They concluded that human activities were not likely the cause of further declines that occurred in the 1990s.

00113-217: The comment refers to a summary of the impacts of routine operations of TAPS on threatened and endangered species. The impacts of oil spills on these species is presented in Section 4.4.4.12.

00113-218: The last documented sighting of an Eskimo curlew was in Texas in 1962, prior to construction of the TAPS. It is generally believed that overhunting is the most important cause of the decline for this species. Section 3.22.1.3 has been modified to indicate when the last Eskimo curlew was observed.

00113-219: Steller's eiders have been occasionally reported in Prince William Sound, but not Port Valdez. Significant impacts of routine operations of the Valdez Marine Terminal and associated permitted discharges into Port Valdez are not expected to have an effect on this species. Similarly, the two endangered whale species discussed in Section 4.3.18, the humpback whale and fin whale, are found in Prince William Sound, but have not been reported in Port Valdez.

Based on these distributions alone it is unlikely that routine Valdez Marine Terminal operations and effluent discharges could affect any of these species. The work of Payne et al. has been very useful in identifying the significance of the risks of effluent discharge from the Ballast Water Treatment Facility on aquatic organisms in Port Valdez. These studies have demonstrated that the effluent poses no risk or very low risk to the species examined. Recently, Payne et al. have hypothesized the potential for higher risks associated in the surface microlayer of the water column. Until data are available regarding actual concentrations in this layer, it would be speculative to characterize the associated risk.

00113-220: The possibility of the introduction of nonindigenous organisms via untreated segregated tanker ballast water is addressed as part of the analysis of cumulative effects in Section 4.7.7.2.1. A reference to this section has been added to the discussion in Section 4.3.16.1. Possible treatment approaches are now identified in Section 4.7.7.2.1.

00113-221: The impact of such events are described in Section 4.4 (Spills Analysis for Proposed Action).

00113-222: The Valdez Marine Terminal was built on bedrock, which is less vulnerable to earthquakes. Because the terminal is not in a permafrost region, the impact of permafrost thawing is not an issue. Major earthquakes have been recognized in the design of the terminal. The storage tanks of crude oil are at an elevation more than 400 ft above sea level. The tanks and other critical facilities are at elevations beyond the run up of tsunami.

00113-223: Table 2-1 summarizes environmental impacts while Section 4.2 addresses impacting factors, which include findings that affect pipeline operations (e.g. changes in soil conditions).

00113-224: The reader is referred to a text box in Section 4.4.4.3 on oil spills (scenarios, impacts, response) for the Copper River Drainage.

00113-225: A short discussion of infaunal and epifaunal invertebrates that serve as food for fish has been added to Section 3.19.1. A discussion of observed and potential effects of oil on infaunal and epifaunal invertebrates has been added to Section 4.4.4.10.

00113-226: Depending upon the timing and the quantity of oil, it is true that major impacts could occur to salmon in the Copper River if a large amount of oil from a pipeline break were to reach the Copper River. Spills into the Gulkana and the Tazlina Rivers (both tributaries of the Copper that are crossed by the TAPS) were considered as part of the spill scenario analyses in Section 4.4.4.10.1. Text has been added to Section 4.4.4.10.1 to reiterate the importance of the Copper and Lowe Rivers for salmon production in the area and to recognize the potentially severe impacts to salmon in the event of a large spill entering those rivers. The discussion of potential effects of intertidal oil contamination on reproduction of pink salmon has been expanded to include additional references.

00113-227: A short discussion of infaunal and epifaunal invertebrates that serve as food for fish has been added to Section 3.19.1. Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10 along with a discussion of observed and potential effects of oil on infaunal and epifaunal invertebrates

00113-228: We believe that the EIS fairly presents the status of the debate over ongoing impacts of the Exxon Valdez oil spill on fish populations in Prince William Sound. Additional references and discussion have been added to Section 3.19.1.3, including information reported by the Exxon Valdez Trustee Council that sockeye and pink salmon are considered "recovering," while Pacific herring is considered "not recovering."

00113-229: Discussion of the assumptions and how the expected frequencies reported in Table 4.4-1 were derived are covered in Section 4.4 of the EIS.

Since the historical record on TAPS spills reported in the TAPS oil spills database was used or factored into the estimated spill scenario frequencies provided in Table 4.4-1; comparison of the estimated spill frequencies with the frequency of the TAPS historical record would have little value.

00113-230: The Copper River Basin physiographic unit encompasses the Gulkana Uplands and the Copper River Lowlands provinces, and extends from Isabel Pass (TAPS milepost 610) to Tonsina (TAPS milepost 720). The Gulkana Uplands consists of rounded east-trending ridges separated by lowlands 2 to 10 miles wide extending from Isabel Pass to the south end of Paxson Lake (TAPS milepost 635). The Copper River Lowlands is a broad plain 1,000 to 2,500 feet in elevation that is incised by the Copper River and its tributaries. The TAPS pipeline is several miles west of, and generally parallels, the Copper River and crosses several large tributaries including the Gulkana, Tazlina, and Klutina rivers.

There appears to be a total of 35 stream crossings for the TAPS within mileposts 610 to 720. Between MP 610 and MP 720, there are 14,393 meters of TAPS which fall within 1000 ft of a hydrographic feature (stream or lake). Of these, 11,145 meters are above ground and 3,248 meters are buried. These estimates are based on the linear pipeline data supplied by APSC and hydrographic features from Census TIGER data.

The methodology used to estimate the volume and frequency of crude oil spills along the TAPS pipeline is provided in Section 4.4 "Spills Analysis for Proposed Action."

In general, the spill analysis for the TAPS provides screening-level results on a mile-by-mile basis. For each mile, worst-case conditions were applied to represent the entire mile, even though the conditions may only apply for a few hundred feet or less. As an example, for the various vulnerabilities, the worst-case conditions for a specific hazard, such as a stream crossing, for a pipe joint (typically a 40-60 foot section of pipe) were assigned to the entire mile-long section. This is somewhat conservative but considered to be appropriate. In addition, this spill analysis combined the risks from all hazards, not only flooding at stream crossings, at each mile, and thus is generalized.

Estimating the volume of oil spilled in a leak scenario is a complex task, given the number of random variables included in the calculation, such as weather conditions and operator response times. To account for these uncertainties, the volume calculations were carried out using best-estimate information; therefore, results were compiled for ranges of spill volumes, rather than quantitative values. The ranges of spill volumes are however consistent with the maximum spill volumes for various pipeline segments given the document entitled "Trans-Alaska Pipeline System Pipeline Oil Discharge Prevention and Contingency Plan, General Provisions, CP-35-1 GP," prepared by the APSC (2001).

00113-231: Additional information about the fate and potential effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10.

Additional information about the fate and transport of light components of a crude oil spill (e.g., benzene, toluene, ethylbenzene, and xylene, collectively known as BTEX) has been added to Section 4.4.2.

00113-232: Additional information about the fate and potential effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10.

00113-233: Text has been added to Section 4.4.4.10.1 to present the possibility that oiling of a stream might affect salmon migration because of the dependence on olfaction to locate natal streams.

In addition, temporary delays in fish migration are likely to occur from use of oil spill response technology. APSC uses temporary structures such as dams, portable Dunklee dams, inclined culverts, deflection booming (at culverts), underflow devices, and overflow dams to intercept spilled oil and facilitate recovery.

00113-234: Text has been added to Section 4.4.4.10.1 to present the possibility that oiling of a stream might affect salmon migration because of the dependence on olfaction to locate natal streams. In addition, temporary delays in fish migration are likely to occur from use of oil spill response technology. APSC uses temporary structures such as dams, portable Dunklee dams, inclined culverts, deflection booming (at culverts), underflow devices, and overflow dams to intercept spilled oil and facilitate recovery.

00113-235: Additional discussion of the identified and ongoing impacts of oil contamination on intertidal invertebrates and fish from the Exxon Valdez oil spill has been added to the Section 3.19.1.3 of the EIS.

The identified text on page 4.7-93 of the DEIS referred to the fact that direct mortality due to oil spill has seldom been documented for marine spills. Text has been added to clarify the statement.

Depending upon the timing and the quantity of oil, it is true that major impacts could occur to salmon in the Copper River if a substantial amount of oil from a pipeline break were to reach the Copper River. Spills into the Gulkana and the Tazlina Rivers (both tributaries of the Copper that are crossed by the TAPS) were considered as part of the spill scenario analyses in Section 4.4.4.10.1. Text has been added to Section 4.4.4.10.1 to reiterate the importance of the Copper and Lowe Rivers for salmon production in the area and to recognize the potentially severe impacts to salmon in the event of a large spill entering those rivers. The discussion of potential effects of intertidal oil contamination on reproduction of pink salmon has been expanded and includes additional references.

00113-236: Discussion of observed (including the Exxon Valdez oil spill (EVOS)) and potential effects of oil on infaunal and epifaunal invertebrates has been added to Section 4.4.4.10. A discussion on the impacts of oil spills (including EVOS) on birds is presented in Section 4.4.4.11. Section 3.20 primarily addresses the birds that occur along the ROW, with lesser discussion of birds along the North Slope and within Prince William Sound; as this section is an “affected environment” section related mainly to TAPS. Impacts to birds are presented in Sections 4.3.17 (proposed action), 4.4.4.11 (oil spills), and 4.7.7.3 (cumulative impacts).

00113-237: Section 3.20.3 mentions the importance of the Copper River for shorebirds and other species. Your concerns about the potentially adverse impacts of an oil spill into the Copper River are noted. Please refer to the text box in Section 4.4.4.3 entitled “Oil Spill Planning for the Copper River Drainage” for information on oil spill prevention and response capabilities and related activities specific to the Copper River Drainage area.

00113-238: Impacts from the Exxon Valdez oil spill on birds are addressed in Section 4.4.4.11. The decision was made to address the impacts in that section in order to provide comparative information within the spills analysis discussion. The spills analysis for all ecological resources can be found in Sections 4.4.4.8 thru 4.4.4.12.

00113-239: The text of Section 3.22.3.4 has been modified to present the conclusion of Hoover-Miller et al. (2001) that the effects of the spill were limited and transitory and overshadowed by the overall continuing decline in the harbor seal population. The harbor seal is now considered “not recovering” by the Exxon Valdez Trustee Council (2002) because they continue to decline since the spill in both the oiled and unoiled parts of Prince William Sound.

00113-240: Additional discussion of oil spill impacts on wildlife has been added to Sections 4.4.4.11 and 4.4.4.12 of the EIS. The description of the current status of the sea otter has been revised in Section 3.22.3.5 to indicate that the species is considered to be recovering because aerial and boat surveys in Prince William Sound show statistically significant evidence of sea otter population increases following the oil spill (1993-98). However, in the most heavily oiled bays in the western sound, such as those on northern Knight Island, the aerial surveys indicate that recovery is not complete.

00113-241: Section 4.3.18.2 discusses the impacts of routine operations of TAPS. Tanker traffic and its impacts (including the effects of noise on marine mammals) are considered in the cumulative impact analysis (Section 4.7.7.4).

00113-242: Results of the models used in the spill analysis (discussed in Section 4.4.4.5.2 and 4.4.4.5.4), and the assumed response time, were used to estimate the potential extent of shoreline contamination. Section 4.4.4.5.4 discusses the effects of inclement weather or other unforeseen circumstances on the success of response actions and the potential for a larger impact area.

00113-243: A short discussion of infaunal and epifaunal invertebrates that serve as food for fish has been added to Section 3.19.1. Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10 along with a discussion of observed and potential effects of oil on infaunal and epifaunal invertebrates.

00113-244: A discussion of hydrocarbons in Port Valdez and Prince William Sound in found in Section 3.11.3. References to recent work on determining the source of the hydrocarbons are also discussed.

00113-245: The EIS presented both sides of the current scientific debate on the origins of hydrocarbons in PWS. We recognize that different PAHs have different bioavailabilities. Section 4.7.6.11.2 identifies that oil spills have the most potential for foodchain impacts related to bioaccumulation. The references for both volumes are found in Volume I. The references noted as missing are present.

00113-246: The discussion of the EVOS is included in the document as background and to describe the environment that could potentially be affected by future pipeline operations. It is not meant to be an exhaustive treatment and does not attempt to list or quantify all the impacts caused by the EVOS.

00113-247: Discussion of the importance of infaunal and epifaunal invertebrates as food for fish has been added to Sections 3.19.1and 3.19.1.3. Discussion of observed and potential effects of oil spills on infaunal and epifaunal invertebrates has been added to Section 4.4.4.10.

00113-248: Potential impacts of oil spills on birds are addressed in Sections 4.4.4.11 and 4.7.7.3.5. Additional discussion on the impacts of an event such as the Exxon Valdez oil spill (EVOS) have been added to both sections. However, the potential of such an event occurring again is unlikely to very unlikely, especially considering modifications and practices that have, or will, be put into place since EVOS (e.g., SERVS, double-hull tankers, and improved spill response capabilities).

00113-249: In the TAPS EIS, the assessment of oil transportation by TAPS for the next 30 years is assessed based on the best available estimates of the ranges of total North Slope oil production and transportation requirements during that period. This includes increases in production by new fields as well as decreases in production by older fields.

There are many possible scenarios for the future of North Slope oil development and production. For this reason, the assessment of the impacts of oil transportation by TAPS includes consideration of a range of throughput, from less than the most likely throughput to greater than the most likely throughput. The range of throughputs considered was intended provide an upper bound for the impacts of oil transport by TAPS during the renewal period. The volumes of transportation by TAPS should remain within those bounds with the development of new production areas, even ones that now seem unlikely.

For the purposes of cumulative impact assessment, where the impacts of the proposed action and alternatives are added to other past, present, and reasonably foreseeable actions, petroleum production in ANWR is not considered reasonably foreseeable. Exploration and development in ANWR is not possible without Congressional approval. Likewise, other speculative North Shore development was also not considered reasonably foreseeable.

00113-250: Section 4.7.4.9.2 identifies and describes tourism as one of the other actions that is included in the cumulative impact assessment. The impacts of all actions on tourism-related activities, such as land use, recreation, wilderness, and aesthetics are briefly addressed in Section 4.7.8.5 and 4.7.8.6. Additional brief descriptions of the affect of spills on these topics have been added to these sections.

The economic effects of oil spills have been addressed in Section 4.7.8.3. Text has been added to the EIS providing additional sources of information on the impact of the spill on communities, fisheries resources and tourism in the Prince William Sound area.

00113-251: The effect of oil spills on fish and wildlife species is addressed in detail in the EIS in Sections 4.4.4.10, Fish; 4.4.4.11, Birds and Terrestrial Mammals; and 4.4.4.12, Threatened and Endangered Species. Briefly summarized, the effects of large but unlikely spills on fish populations could be significant in the area affected and for an extended period of time and therefore could adversely affect the associated recreational activities of sport fishing and tourism. By comparison, terrestrial species would be less affected both spatially and temporally as would their associated recreational activities of hunting, trapping and tourism.

The impact of a major spill in Prince William Sound has been added to Section 4.7.8.6.1, which discusses cumulative impacts on recreation, including fishing and tourism.

00113-252: Section 4.7.4.9.4 describes commercial fishing as an other action which should be included in the cumulative impact assessment.

While it is clear that the costs of the spill measured in terms of losses to the recreation, tourism and fishing industries have been significant, these have been outweighed by the economic benefits associated with spending by the large number of cleanup workers involved, producing additional employment and income impacts in the local area and in the state as a whole (see Section 4.7.8.3). There were also additional offsetting economic benefits from compensation claims as it is likely that a portion of the cash from compensation payments has been spent in local communities directly affected by the spill and in the state as whole. The long-term effects of the spill on the environment in Prince William Sound have yet to be fully established and the potential costs of compensatory claims for additional environmental damages may still significantly increase the overall monetary cost of the spill.

Text has been added to the EIS providing additional sources of information on the impact of the spill on communities, fisheries resources and tourism in the Prince William Sound area.

00113-253: An approach similar to that applied in the Yellowstone Reroute Pipeline EIS (1999) was used in the EIS to estimate the probable spill size distribution of crude oil and refined petroleum products in the anticipated and likely frequency ranges.

For spills with a frequency greater than once every thirty years, actual spill data involving small or moderate leaks provided in the TAPS Spill Database (2001) were used. Incident rate and spill size distribution information provided in the TAPS Spill Database (2001) were used to determine the probable return interval of various sized spills for the Prince William Sound. Based on the probable spill size distribution curve, the spill volume was established for given spill frequency (0.5/year for an anticipated spill event, 0.03/year for a likely spill event). Therefore, the spill scenarios postulated for the cumulative impact analysis agree with historical spill information over the first 25 years of TAPS operations. The perceived difference may be because most spills are relatively small and these tend to skew the distribution towards lower spill volumes for a given overall spill frequency.

A different approach was applied for spill scenarios with frequencies in the unlikely and very unlikely frequency ranges where historical spill information is unavailable; the hypothetical spill scenarios for these scenarios involving the Prince William Sound followed the methodology used in the Prince William Sound, Alaska Risk Assessment Study (Det Norske Veritas et al., 1996).

00113-254: Section 4.7.4.10.has been revised:

00113-255: The sections that analyze spills assume that a spill response will be successful, that sufficient equipment is available, and that it is deployed and operates correctly. This section further assumes that weather conditions at the time of the spill would not significantly change the effectiveness of the spill response action. If these conditions are not met, the potential impacts from an oil spill could be larger, and the impacted area larger, than those presented in the analysis for the various accident scenarios. For the larger volume spill events analyzed, unfavorable weather conditions could result in any spill response action being ineffective; this would result in significant impacts over very large areas. The text in Section 4.4.4.5 was changed to emphasize the possibility of significant impacts if a spill response is not successful.

00113-256: Section 4.4.4.5 acknowledges that the spill is assumed to occur in non-extreme weather. The section further states that under inclement weather conditions, the areas impacted and the spill impacts would be significantly larger.

00113-257: The spill prevention and response measures employed in PWS are described briefly in Section 4.1.4.3 of the EIS. Details on the equipment available and procedures in place are given in the Prince William Sound Oil Discharge Prevention and Contingency Plan (Prince William Sound Tanker Plan Holders 1999), which is available to the public through various libraries in several major cities in Alaska at times the plan is subject to public review.

00113-258: The statement in question was taken from a NOAA description of how North Slope Crude oil behaves after an oil spill (NOAA 2000, NOAA 2000a). No change was made.

00113-259: The sections that analyze spills assume that a spill response will be successful, that sufficient equipment is available, and that it is deployed and operates correctly. This section further assumes that weather conditions at the time of the spill would not significantly change the effectiveness of the spill response action. If these conditions are not met, the potential impacts from an oil spill could be larger, and the impacted area larger, than those presented in the analysis for the various accident scenarios. For the larger volume spill events analyzed, unfavorable weather conditions could result in any spill response action being ineffective; this would result in significant impacts over very large areas. The text in Section 4.4.4.5 was changed to emphasize the possibility of significant impacts if a spill response is not successful.

00113-260: The spill prevention and response measures employed in the PWS are described briefly in Section 4.1.4.3 of the EIS. Details on the equipment available and procedures in place are given in the Prince William Sound Oil Discharge Prevention and Contingency Plan (Prince William Sound Tanker Plan Holders 1999), which is available to the public through various libraries in several major cities in Alaska.

The text in Section 4.4.4.5.4 states that there is a potential for the response action to not be successful due to the spill occurring during extreme weather, in which case the impacts from the spill would be much more significant.

00113-261: The impacts on seawater hydrocarbon concentrations, amount of shoreline affected, etc. from an oil spill would be similar for the less-than-30-year renewal alternative compared with the proposed action. However, the overall probability of a spill (which is the product of the spill frequency multiplied by the number of years) will be lower with the less-than-30-year renewal period. Section 4.7.6.6 has been revised.

With respect to the No-Action Alternative, the risk (defined to be the product of the spill frequency multiplied by the consequence or environmental effects of the spill) of a spill in the Prince William Sound would still exist. Currently, the APSC Pipeline's Ship Escort/Response Vessel System (SERVS) responds to calls for assistance in the Prince William Sound by the United States Coast Guard. This spill emergency response infrastructure may not be maintained after closure of the TAPS. In this event, the environmental effects of a spill of crude oil or refined petroleum product destined for the Valdez Petro Star Refinery or other facilities in the area of the Prince William Sound could be larger than those under the proposed action due to the reduction in spill response equipment.

00113-262: The DEIS did not ignore the hazardous air pollutants (HAPs) released from ongoing operations at the Valdez Marine Terminal, including the Ballast Water Treatment Facility (BWTF). The benzene, toluene, ethyl benzene, and xylene (BTEX) emissions from the Dissolved Air Floatation (DAF) tanks and biological treatment system associated with the BWTF at the Valdez Marine Terminal (about 493 pounds/day, or 90 tons/year) are included in the total emissions of hazardous air pollutants from the Valdez Marine Terminal (about 673 pounds/day, or 122.9 tons/year), as listed in Table 3.13-6 of DEIS. This is reflected in Table 3.13-6 of FEIS.

The BTEX quantity (approximately 580 pounds/day, or 105 tons/year) estimated by Payne et al. (2002) is the mass removal rate of the BTEX compounds at the Dissolved Air Floatation (DAF) system of the BWTF, not the rate of the BTEX emissions to the atmosphere from the BWTF. Although much of this mass is released to the atmosphere, a certain fraction of the BTEX removed by the DAF system remains in the oil skimmed off. Therefore, the rate of BTEX released to the atmosphere would be less than 105 tons/year. The atmospheric emission rate of the BTEX compounds from the BWTF estimated by APSC is about 493 pounds/day, or 90.0 tons/year.

Conservatively high ambient concentration estimates of BTEX and other toxic air pollutants emitted from the BWTF and other sources at the Valdez Marine Terminal were considered in estimating potential health impacts associated with ambient concentrations of these pollutants in Valdez area under the proposed action (at the crude oil throughput levels of 0.3, 1.1, and 2.1 million bbl/day) and other alternatives (see Sections 4.3.13, 4.5.2.13, and 4.6.2.13). These ambient concentration estimates are based on the ambient BTEX concentrations monitored during the 1990-1991 personal and ambient monitoring studies and the tracer studies conducted in the Valdez area when both the vapor emissions from tankers and the DAF units were released. The baseline ambient concentrations used in the health risk calculations were given in the Affected Environment section (Table 3.17-4); a reference to this table has been added to the footnotes of Table 4.3-4 to clarify.

00113-263: Appendix C was intended to provide an overview of the amounts and types of wastes generated as a result of TAPS operations and to provide a discussion of their respective management schemes. Appendix C, therefore, provides data that can serve as a basis for evaluations of environmental impacts associated with waste generation and management that are provided in other sections of the EIS. Specifically, the impacts of BWTF discharges to PWS are discussed in Section 4.3.8.1. Potential impacts to public health from BWTF discharges to PWS are discussed in Section 4.3.13.2.1.

00113-264: The DEIS does not speculate as to the exact technology changes that may have to be implemented to ensure the decreased influent associated with double-walled tankers does not impact the operation of the BWTF. Under federal and state regulations, all discharges from the BWTF would have to either meet the current effluent limitations under the NPDES Permit (AK-002324-8) or, if there any activities that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the current permit, and if that discharge may reasonably be expected to exceed the highest of the "notification levels" listed in the current Permit, the ADEC and the EPA must be notified (AK-002324-8, Section III.L). In addition, under the current Permit, the permit may be modified, or alternatively, revoked and reissued, to address the application of different permit conditions, if new information, such as future water quality studies or waste load allocation determinations, or new regulations such as changes in water quality standards, show the need for different conditions (AK-002324-8, Section V.M).

00113-265: Federal regulations would require that any discharges of wastewaters to Prince William Sound from a new LNG plant obtain a NPDES permit for liquid waste discharges, as well as an air permit for air emission releases. At this point in time, because particular specifications of any LNG plant have not been established, a more quantitative analysis of impact to air and water quality is impossible. However, such analyses can be expected to be part of deliberations in advance of any NPDES or air emissions permits. If, for any reason, a review under the National Environmental Policy Act (NEPA) were required, cumulative impacts for air and water emissions would be addressed.

00113-266: The emissions from the Valdez Marine Terminal itself are not included in Table 4.7-8 (page 4.7-82) because the table lists only the TRI-reportable emissions (EPA 2002) and the emissions from the TAPS facilities are not required to report to TRI. (See the Response to Comment 00113-269.)

00113-267: The benzene, toluene, ethyl benzene, and xylene (BTEX) emissions from the Dissolved Air Floatation (DAF) tanks and biological treatment system associated with the Ballast Water Treatment Facility (BWTF) at the Valdez Marine Terminal (about 493 pounds/day or 90 tons/year) are included in the total emissions of hazardous air pollutants from the Valdez Marine Terminal (about 673 pounds/day or 122.9 tons/year) as listed in Table 3.13-6 of DEIS. This is reflected in Table 3.13-6 of FEIS.

00113-268: The estimated risk of 3 x 10-5 was only very slightly linked to the findings of the tracer study. In the Valdez Air Health Study (VAHS) by Goldstein et al. (1992), the annual average ambient benzene concentration at 3 Valdez residential area monitoring locations ranged from 4 to 5 ug/m3 (based on hourly sampling for one year from Nov 1990 through Oct 1991). Because the VAHS concluded that only 10% of the residential area benzene concentration was contributed by Valdez Marine Terminal emissions, only 10% of the ambient level was scaled with projected future throughputs. Therefore, the DEIS risk calculations assumed exposure to all the ambient benzene, regardless of its source. The risk results for the residential area would not change even if the tracer study results were wrong. The actual range of residential area benzene concentrations assumed for varying throughputs in the risk calculations was very narrow, from 4.6 to 5.1 ug/m3 (corresponding to increased cancer risks of from 3.0 to 3.2 x 10-5, see Table 4.3-4).

The Valdez ambient air benzene value is similar to, but on the high side of, current ambient benzene values in large U.S. metropolitan areas. For example, the 2001 ambient benzene values in Anchorage, Portland, Chicago, and New York ranged from about 1 to 3.5 ug/m3; the values for Los Angeles ranged from 1 to 5 ug/m3. Ambient benzene concentrations have been decreasing in major cities in the past decade; an EPA study shows a 47% decrease at 95 urban monitoring sites between 1994 and 2000 (http://www.epa.gov/airtrends/toxic.html). EPA attributes the decrease to stricter car emissions standards, required use of cleaner burning gasoline, and standards requiring emission reductions at oil refineries and chemical plants. Based on these data, it is likely that ambient benzene levels in Valdez have also decreased in the time since the 1990/91 air monitoring effort. However, no new ambient air benzene data are available for Valdez at this time; such data would be useful in estimating potential long term health impacts.

00113-269: The 13 tons of benzene emissions from 7 sources in the State of Alaska in 1999 listed in Table 4.7-8 (page 4.7-82) include only those Toxic Release Inventory-reportable emissions, which do not include benzene emissions from all other emission sources, including the TAPS facilities. As pointed out in Section 4.7.6.11.2, industrial sources are estimated to contribute only about 14% of benzene emissions in the United States and not all industrial sources are required to report. Therefore, it would be misleading to state that the annual benzene emissions from the Valdez Marine terminal alone are 3.3 times higher than ALL the other sources over the entire state combined.

The benzene, toluene, ethyl benzene, and xylene (BTEX) emissions from the Dissolved Air Floatation (DAF) tanks and biological treatment system associated with the Ballast Water Treatment Facility (BWTF) at the Valdez Marine Terminal (about 493 pounds/day or 90 tons/year) are included in the total emissions of hazardous air pollutants from the Valdez Marine Terminal (about 673 pounds/day or 122.9 tons/year) as listed in Table 3.13-6 of DEIS. This is reflected in Table 3.13-6 of FEIS.

A footnote has been added to Table 4.7-8.

00113-270: Although the protection of cleanup workers is regulated under the Occupational Health and Safety Act and is, therefore, beyond the scope of the DEIS, potential public health impacts from spills are evaluated in the DEIS. In particular, Section 4.4.4.7.2 assesses the potential for adverse health impacts resulting from inhalation of contaminants volatilized from spills along the pipeline, spills at the Valdez Marine Terminal, spills during transportation accidents, and spills to rivers along the pipeline.

00113-271: Section 3.11.3 discusses the current debate about the origin of hydrocarbons in Prince William Sound.

00113-272: The text in Section 4.4.4.7.4 (Impacts from Foodchain Exposures Resulting from Spills to Water) extensively discusses the potential cancer risk that could occur from consumption of contaminated shellfish if a large spill to PWS were to occur. Because shellfish do not metabolize PAH compounds, they could more plausibly present increased cancer risk for individuals regularly ingesting food obtained from PWS than could fish or mammalian species that do metabolize PAHs. The potential increased cancer risk was evaluated using data from references suggested by the commentors (i.e., Varanasi et al. 1993; Field et al. 1999). The conclusion was that the highest possible increased cancer risk from ingestion of contaminated shellfish was somewhat less than the lower bound of increased cancer risk from ingestion of smoked salmon (see Table 4.4-35). Both the text of Section 4.4.4.7.4 and the Cumulative Impacts Human Health section (Section 4.7.6.11.2) discuss the increased stomach cancer rates of Native Alaskans in comparison with the U.S. white population, and that this may be due to frequent ingestion of smoked foods. The text also states that any additional exposures to PAHs should be avoided where possible. However, no cumulative impact has occurred, because it is not known whether the increased stomach cancer rate of Native Alaskans actually is due to smoked food ingestion, and because no large spill to PWS in association with TAPS operations has occurred.

Although there may be a high and adverse health (i.e., stomach cancer) to Alaska Natives, its causes are not well established. In lieu of better established causes—notably causes associated with the TAPS or as cumulative impacts that involve the TAPS—the EIS identified no environmental justice impacts for this particular issue.

00113-273: Although both past and present impacts have been considered in the cumulative impact analysis, additional text has been added to Section 4.7.7.1.4 for clarification.

00113-274: The introduction of non-native species into Prince William Sound as a result of the release of ballast water is recognized as a potential impact by BLM. At this time, BLM does not have regulatory oversight on the release of ballast water. Regulatory oversight is provided by the U.S. Coast Guard and Department of Transportation. The BLM will continue to work with these organizations to develop plans or studies that could reduce this potential impact.

00113-275: The statement that fish populations had largely recovered has been revised. Additional references and discussion have been added to Section 4.4.4.10, and 4.7.7.2 regarding the status of fish populations potentially affected by Exxon Valdez oil spill and identify that while some species (e.g., pink salmon) appear to have recovered, the status of some species remains uncertain, and herring apparently have not recovered.

00113-276: The impacts of the Exxon Valdez oil spill are included in the existing baseline. Only anticipated or likely oil spills are included in the cumulative impact analysis, because they are "reasonably foreseeable" and therefore included as required by NEPA implementing regulations.

00113-277: The impacts of the Exxon Valdez oil spill are included in the existing baseline and are described in Section 3.22 for those species for which data are available. Table 4.7.9 incorporates residual impacts of the Exxon Valdez oil spill into the existing baseline values. Only anticipated or likely oil spills are included in the cumulative impact analysis, because they are "reasonably foreseeable" and therefore included as required by NEPA implementing regulations. Larger future spills are not included in the cumulative impact analysis because the probability of their occurrence is very low and they are therefore not reasonably foreseeable.

00113-278: Text in Section 4.7.8.1 has been revised to discuss the potential impacts of a large tanker spill in Prince William Sound in greater detail.

00113-279: Sections 4.7.8.1 and 4.4.4.14 discuss the issue of impacts from perceived damage to subsistence resources.

00113-280: For the EIS spills assessment, ranges of containment were assumed to reflect both effective and ineffective containment. For spills to land, a range of containment was assumed, resulting in assumed oil pool depths of from 3 inches (corresponding to good containment) to 1 inch (corresponding to poor containment). Similarly, for spills to rivers a range of oil slick sizes was assumed based on low-flow vs. high-flow conditions, average response times and varying pipeline throughputs (see Section 4.4.4.3).

For the spill impact assessment for short-term inhalation effects, some containment of spills into Port Valdez was assumed, in order to calculate a reasonable oil surface area for volatilization estimates. The assumption was that booms would be used to contain the oil to a concentration of about 1.7 gal/ft2 based on APSC oil spill contingency planning. However, in estimating the potential foodchain impacts from oil spills, a somewhat different approach was taken of assuming that the contamination and impacts from the very large and minimally contained Exxon Valdez Oil Spill would bound the impacts of spills that could occur in the future. The assessment accounted for the possibility that spilled oil could be present in tidal zones and sediments for long periods of time by assuming that the most highly contaminated shellfish could be ingested for up to 10 years. Based on shellfish tissue data obtained to investigate the impacts of the Exxon Valdez Oil Spill, this is an overestimate, because shellfish contaminant levels from the most contaminated fishing areas had decreased substantially by 2 years after the spill.

Although the protection of cleanup workers is regulated under the Occupational Health and Safety Act and is, therefore, beyond the scope of the EIS, potential public health impacts from spills are evaluated in the EIS. In particular, Section 4.4.4.7.2 assesses the potential for adverse health impacts resulting from inhalation of contaminants volatilized from spills along the pipeline, spills at the Valdez Marine Terminal, spills during transportation accidents, and spills to rivers along the pipeline.

00113-281: Additional references have been added to the EIS regarding the impacts of oil spills, including the Exxon Valdez oil spill.

00113-282: The referenced section (3.23.5) focuses on economics. However, a series of sections in the EIS focus explicitly on subsistence—including Sections 3.24, 4.3.20, 4.4.4.14, 4.5.2.20, 4.6.2.20, and 4.7.8.1, as well as Appendices D and E. The issues mentioned in the comment are addressed in these other sections, where the sociocultural and ceremonial roles of subsistence are discussed in additional to its economic (measured in terms of resources provided, not monetarily) role.

00113-283: The text in Section 4.3.19.7 of the EIS has been changed to reflect the fact that many subsistence activities have great cultural significance to Alaska Natives. These activities are not necessarily replaced by higher levels of participation in the market economy as personal income increases in Alaska Native communities, and decreases in income do not necessarily affect the productivity of subsistence activities.

00113-284: Section 3.24.2.4.1 in the EIS has been revised to address impacts of the Exxon Valdez oil spill on Chenega Bay. Section 4.7.8.1 also has been revised to discuss in greater detail impacts of the spill on subsistence in Prince William Sound.

00113-285: Sections 4.4.4.14 and (especially) 4.7.8.1 have been modified to discuss the impacts of the Exxon Valdez oil spill on subsistence in greater detail. In addition, supplemental data on subsistence change over time in Prince William Sound rural communities have been provided in Section 3.24.2.4; these data include information pre- and post spill years. Discussions of potential impacts of the spill include references to herring and pink salmon stocks.

00113-286: Section 3.24.2 notes that Valdez lies in a nonrural portion of Alaska, as defined by the Federal Subsistence Board, and as a result is not considered for subsistence under the federal definition of the practice (see also Section 3.24.1).

00113-287: Discussions of sociocultural impacts of the Exxon Valdez oil spill on peoples in Prince William Sound have been expanded in Sections 3.24.2.4.1, 3.24.2.4.2, 3.24.2.4.5, 4.4.4.15, and 4.7.8.2.

00113-288: For the FEIS, the foodchain risk results have been corrected. The changes do not change the basic conclusions about risk drawn in the EIS.

The total of 15 carcinogenic PAHs measured in the Windy Bay samples (Varanasi et al. 1993—see Section 4.9 of the FEIS for reference) cannot be directly compared with total PAH levels in mussels from the Valdez Marine Terminal and Gold Creek areas as part of the PWS RCAC LTEMP (Payne et al. 2001). Measurement of total PAHs includes many more substances.

The text in Section 4.4.4.7 addressed the fact that crude oil contains over 100 different PAH compounds. Only those that have been found to be carcinogenic in toxicity testing are included in cancer risk calculations. The uncertainties associated with the evaluation of mixtures and the lack of data on condensed thiophenes are acknowledged in Section 4.4.4.7.4. Although there currently is not a definitive method to address these uncertainties, the risk assessment method used for the EIS calculations intentionally overestimated the intake of the carcinogenic PAH compounds with the intent of compensating for the lack of toxicity data on all the PAHs. For example, it was assumed that all the shellfish consumed by an individual would be mussels, although surveys show that mostly the less contaminated butter clams are consumed by Alaskan Natives (Reference: Appendix 3 of Field et al. 1999).

The text also discusses the increased stomach cancer rates of Native Alaskans in comparison with the U.S. white population, and that this may be due to frequent ingestion of smoked foods. The text also states that any additional exposures to PAHs should be avoided where possible.

00113-289: The discussion of subsistence impacts from a catastrophic tank failure at the Valdez Marine Terminal have been revised slightly to describe subsistence impacts more completely (see Section 4.4.4.14). Section 4.7.8.1 (cumulative impacts to subsistence) also has been revised, and now discusses in much greater detail impacts of a large tanker spill on Prince William Sound, referring to impacts experienced due to the Exxon Valdez oil spill (see also Sections 3.24.2.4.1, 3.24.2.4.2, and 3.24.2.4.5).

00113-290: The total of 15 carcinogenic PAHs measured in the Windy Bay samples (Varanasi et al. 1993) cannot be directly compared with total PAH levels in mussels from the Valdez Marine Terminal and Gold Creek areas as part of the PWS RCAC LTEMP (Payne et al. 2001). Measurement of total PAHs includes many more substances. Also, the source of the PAHs in the mussels has not been conclusively determined to be the BWTF. Therefore, data are not sufficient to characterize the PAHs in mussels obtained from near the VMT or Gold Creek as an adverse non-spill impact.

00113-291: As stated in Appendix C, Section C.4, the solid waste incinerators operate under ADEC-issued air quality operating permits. The permits address all stationary air emission sources at the pump station, including the incinerators. The permits establish any limits for hazardous air pollutants that may be emitted from the pump station facilities, including the incinerators. In addition, Appendix C states that statistically relevant sampling over time of incinerator ash has shown the ash to be nonhazardous, provided waste segregation controls remain in effect. However, the City of Valdez and the Boroughs of North Star and North Slope require laboratory analyses verifying nonhazardous character for each delivery of ash to their facilities. Consequently, each shipment of ash from incinerators at PS 1 and 2 and the Valdez Marine Terminal is sampled for hazardous characteristics before delivery to designated landfills. Ash from all other incinerators is sampled annually.

00113-292: Under Alaska regulations (18 AAC 60.030), landfill operators may accepted treated medical waste. A very small amount of medical waste is incinerated at the pump station and VMT incinerators (0.026% of the total quantity of solid waste so treated) (See, Table C-10). The APSC-operated Solid Waste Disposal Site (landfill) permits simply state: “Prohibit the disposal of unsterilized medical waste. Medical waste must be decontaminated or sterilized, and then packaged to prevent a health hazard before disposing of in the landfill.” There is no requirement in the landfill permit to sample or monitor ash waste. Appendix C (Section C.4, page C-15), states that statistically relevant sampling over time of incinerator ash has shown the ash to be nonhazardous, provided waste segregation controls remain in effect (APSC 2000c). However, the City of Valdez and the Boroughs of North Star and North Slope require laboratory analyses verifying nonhazardous character for each delivery of ash to their facilities. Consequently, each shipment of ash from incinerators at PS 1 and 2 and the Valdez Marine Terminal is sampled for hazardous characteristics before delivery to designated landfills. Ash from all other incinerators is sampled annually.

00113-293: The text in Section 4.3.12.6 has been changed to address the concerns raised in this comment.

00113-294: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00113-295: Section 4.4.4.15 and Appendix D have been modified to address some of the concerns presented in the comment more clearly. The former discusses the nature of subsistence impacts from a terrestrial spill in greater detail. The latter, in turn, now includes the size of subsistence use area for each community for which the EIS examines subsistence, to provide an increased appreciation of how small the affected area would be. The message of the EIS continues to be that Alaska Native sociocultural systems could overcome localized and temporary adverse effects by exploiting similar resources elsewhere, assuming that the area affected was actually important to subsistence for a particular year prior to the spill. This does not imply that there would be no hardship as a result of a spill, only that the fundamentals of Alaska Native sociocultural systems, such as language, kin ties, and exchange of relationships would survive such a spill.

00113-296: No terrestrial spill considered in the EIS, even the largest, would affect anywhere near the resources affected by the Exxon Valdez oil spill. As a result, the kinds of sociocultural stresses experienced should be different than those experienced following the Exxon Valdez spill, and their magnitude not be as great. Section 4.4.4.15 has been revised to acknowledge sociocultural impacts resulting from the Exxon Valdez spill.

00113-297: Section 4.4.4.15 has been reworded to take into account the concerns expressed by local communities following the Exxon Valdez oil spill. Those revisions include discussion of the nature and duration of impacts, and the relationship of these impacts to other issues (such as subsistence impacts).

With regard to input from the cited communities, all three were contacted by certified letter in April 2002 to solicit their input to this EIS. To date, none of the three has responded to that invitation.

00113-298: The potential health and safety impacts from exposures to BTEX through inhalation discussed by the commentor are discussed in Section 4.4.4.7. Dermal contact has not been an exposure pathway addressed in detail; it is assumed that cleanup workers would be provided with adequate dermal protection, and that dermal contact by members of the general public would not be extensive. The increase in stomach cancer rates in Native Alaskans is speculated to be associated with ingestion of high amounts of smoked foods containing high PAH concentrations. If a large spill occurred, the PAH exposures of Native Alaskans might theoretically increase if they ingested large amounts of contaminated mussels, but this would not necessarily result from employment on a cleanup crew. Although the stomach cancer association is not conclusive, the text of Section 4.4.4.7.4 (Human Health Impacts of Spills) states that any additional exposures to PAHs should be avoided where possible. That stated, because the human health analysis did not identify specific impacts associated with the sorts of PAH and BTEX exposure that might accompany participation on a cleanup crew, the environmental justice analysis did not identify this activity as a concern.

00113-299: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue dialogue with the Bureau of Land Management.

00113-300: The alternative to not renew the federal grant of right-of-way receives extensive analysis in the EIS. For example, please see Section 4.6, No-Action Alternative Analysis. A description of the termination activities that would be required and a general description of what would be involved in implementing a decision to not renew the federal grant are used for the purpose of the analysis in this EIS. However, if the grant is not renewed a more specific and detailed proposal for dismantling, removal, and restoration of the TAPS would have to be submitted by the TAPS owners and that would become the subject of a separate EIS.

00113-301: Relatively little information is available on the biological impacts of spills that have occurred along TAPS during its operational history. Observed effects on vegetation have included initial mortality of most plants followed by recovery of a number of species (see Section 3.18).

ADF&G personnel are not aware of wildlife mortality from any TAPS oil spills (a reference to this has been added to Section 4.4.4.11). The maximum expected land-based oil spill (the potential for which is very unlikely) could impact up to 84 acres. While such a spill could cause the death of some wildlife, no population-level impacts would be expected. Sections 4.4.4.11 and 4.7.7.3.5 discuss oil spill impacts to wildlife.

00113-302: While it is true that a renewal of less than 30 years would proportionally reduce the probability of an oil spill, occurring over the renewal period, the annual risk would be similar, assuming comparable levels of maintenance, and the overall cumulative impacts of the 30-year and less-than-30-year alternatives would still be similar. This is primarily because the likelihood of a large spill that might be expected to significantly affect fish populations already has a low probability of occurrence.

00113-303: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00113-304: The reader should note that a clear distinction is made between regulatory compliance (Section 4.1) and impacting factors (Section 4.2). Impacting factors are used to evaluate environmental effects.

The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00113-305: Reliability centered maintenance (RCM) is discussed in Section 4.1.1.7, including the manner in which RCM methodologies are being made available to the public for review and comment.

00113-306: Appropriate changes have been made to Section 4.1.2.3, its associated text box and footnote.

00113-307: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00113-308: The EIS focuses its attention on those off-normal events that are expected to have adverse public health and environmental consequence. Thirteen credible spill scenarios are identified and analyzed. Many of these spill events are precipitated by off-normal conditions within TAPS.

Further, the EIS describes those design elements of the pipeline that are intended to provide controls and mitigations of impacts that can result from off-normal conditions. The surge tanks present at some pump stations that would serve as temporary storage for oil in the event that overpressure or other system failures occur are one example of such design features. The mainline RGVs and check valves are also examples of how impacts to the environment would be mitigated or limited in the event of off-normal conditions through existing design elements.

For example, there is no evidence that the alleged off normal operations in the BWTF 90s tanks have resulted in off-normal effluent discharges from the BWTF, which have had an adverse impact on the environment or public health and safety. The Alyeska Annual Data Report for June 2000-May 2001, filed with the EPA and ADEC pursuant to Part III.B.6 of NPDES Permit No. AD-002324-8, shows the effluent from the BWTF did not exceed the specific limits established in the Permit. See Appendix C, Section C.5 for operational details. Since the effluent limits in the Permit are established by the EPA, and certified by the ADEC, at levels expected to prevent adverse effects on receiving waters, it is reasonable to conclude that when these effluent limits are met there is no significant adverse effects to existing water quality of Port Valdez from BWT effluent discharges regardless of certain less than optimum plant operations.

00113-309: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

BLM TAPS Renewal EIS
Argonne National Lab EAD/900
9700 Cass Avenue
Argonne, Illinois 60439

RE: Comments on Application of the Trans-Alaska Pipeline System Owners for Renewal of the Federal Grant and State Lease for the TAPS Right-of-Way

My name is Karl o. Steen. My grandfather, Ben Osborne, moved to Cordova in 1908. He manufactured gold jewelry and was deeply involved in the commercial life of Cordova. My uncle, Bjorne Osborne, was a commercial fisherman, as I am, and as is my son, Karl A. Steen. My mother, Gail Osborne Steen, was born in Cordova in 1918, and is retired here now. She had a furniture store on First Street. My wife, Ruth Steen, has a gift shop on First Street. My family has been involved in the City of Cordova for almost on hundred years.

My family and my community are devastated from the aftershocks of the ***Exxon Valdez*** oil spill 13 years ago. The emotional and financial turmoil this catastrophic event brought on Prince William Sound, and Cordova, is impossible to describe.

We are VERY concerned that the next major spill will be along the overland portion of the TAPS. The risk for my community-20% of the 800-mile pipeline is within the Copper River Watershed and the main pipeline crosses 76 tributaries of the Copper River. While spill prevention and response measure have improved significantly since the 1989 spill--almost all due to citizen oversight and pressure; most of those changes are at the Valdez terminal and in Prince William Sound. On the pipeline, reliable spill prevention and response measure still do not exist. The problem is particularly acute at river crossings. TAPS crosses 800 streams and sections of pipeline over rivers have reached design capacity for sag- there is nothing left to give. This seems like an accident waiting to happen. 114-1

My comments are based on my experience living in a community that the oil company and government representatives visited in the early 70's and promised there wouldn't be an oil spill in Prince William Sound. The oil companies made many other promises such as tankers would have double hulls and we would have a state-of-the-art traffic control system in the sound. Had these promises been kept, we might not have had *the Exxon Valdez oil spill.* 114-2

Some, but not all, of the oil companies' promises were stated as a set of conditions and stipulations in the original agreements and right-of-way grants. The Interior Department and its designees were assigned the job of ensuring those promises to the American people were kept. Even a brief review of history shows that many of these promises were broken and that the companies were allowed to operate for literally years in noncompliance with their federal grant and state lease. 114-3

For example, the ballast water treatment (BWT) facility at the tanker terminal has not been reviewed at least once every 5 years to ensure state-of-the-art equipment and technology as promised the federal grant and state lease. Some improvements at the BWT facility occurred only recently and through citizen involvement and oversight. 114-4
The vapor recovery system at the tanker terminal didn't work for decades--since startup until 1998 when vapor controls were built into two of the four berthing docks. 114-5
When it didn't work it dumped literally tons of benzene into the air and jeopardized public and worker health and safety in violation of the federal grant, state lease, and operating permits. In 1993, concerned industry employees testified in Congress that the quality control program was nonexistent--since startup--and, as a result, the entire TAPS had been so poorly maintained that it posed an imminent threat to the public, workers, and the environment. Subsequent audits validated the whistleblowers' concerns. Operating without an independent quality control program is in direct violation of the federal grant and state lease. 114-6

More recent examples occurred after the *Exxon Valdez* oil spill. Still now over 13 years later, most of the species studied by the Trustee Council have not recovered from the spill. Yet the federal grant and state lease promise that damages to public lands will be promptly repaired or replaced and that damages to public fish and wildlife resources, and their habitat, will be rehabilitated. This has not happened. 114-7

The oil companies also promised in stipulations attached to the federal grant and state lease to "take all measures necessary to protect the health and safety of all persons affected by their activities..." (Stipulation 1.20.1). I believe this promise includes taking care of residents and cleanup workers after a spill. Yet, after the *Exxon Valdez* spill, Tatitlek villagers observed that Exxon was willing to spend $800,000 on each sea otter for rehabilitation, but nothing or very little on mental health care for people traumatized by the spill. Further, thousands of cleanup workers got sick during 1989, despite Exxon's worker safety program. I am just learning that hundreds of people may still be sick from overexposure to oil vapors, fumes, and aerosols during the cleanup. All the oil companies promised to "immediately abate any health or safety hazards" (Stipulation 1.20.1): it seems all the companies, not just the spiller, are responsible to ensure that people don't get sick during the cleanup--and to take care of the ones who do as per the original promise. 114-8

I think that the oil companies are now currently in noncompliance with the federal grant and state lease. For example, the fire-fighting ability at the tanker terminal is virtually nonexistent. Oily sludge (hazardous waste) has collected several feet deep in tanks at the BWT facility--and the sludge incinerator was never built as per the original facility design. There is still no independent quality assurance program. The contingency plans for river spills are grossly inadequate--drills show the plans won't work to contain and cleanup oil spilled into rivers. I'm sure this list is incomplete and pipeline regulators could add to it if they were to seriously look for problems and not just respond to ones brought to their attention by citizens or concerned employees. 114-9

In light of these past and still ongoing problems, I strongly disagree with statements made by both the state and federal regulators in the draft EIS documents. The Alaska Department of Natural Resources found the oil companies to be in compliance with the state lease. This determination is obviously a requirement for reauthorization as it has nothing to do with reality. 114-10

Federal and state regulatory agencies also stated that the aging 800-mile pipeline and its support systems that were originally built to last 30 years *"can be sustained for an unlimited duration"* with minimal costs and change in the operating and maintenance procedures. This statement demonstrates a lack of credibility--and no grasp of reality. The recent spate of accidents including the failed response to the Livengood bullet hole spill, and the 21-inch shift in a section of pipeline that went undetected for several months show that both industry and the regulators are ill-prepared for serious problems along the overland section of TAPS. The 3 spills at pump stations on pipeline startup after routine maintenance last fall clearly demonstrate this pipeline is aging and not aging well as frequent spills on startup are one sign of increasing problems that should be anticipated--not ignored--in an aging pipeline. 114-11

I was further shocked and offended by the following statement in the draft EIS. "While the *Exxon Valdez* oil spill was a significant event in the operation of TAPS, creating significant benefits to the state and local economy that more than offset the economic damage to the fishing and tourism industries in Prince William Sound, it is unlikely that a spill of such magnitude, even if it occurred again would create the same level of economic activity" (DEIS, page 4-7-116).

This offensive statement clearly shows that the government regulators have a completely different perspective of their job of pipeline oversight than we were all lead to believe by the federal grant and state lease. The original right-of-way documents do not mention that economics of spill cleanup would be weighed against economic damages to the few communities at risk. Instead the oil companies promised to protect, repair, replace, rehabilitate, etc. fish and wildlife resources, and their habitat--and the regulators are supposed to hold the companies to this promise. Specifically, the 114-12

companies also promised to protect subsistence resources, lands, and users, which have a zero dollar economy and can't be compared to economics of spill cleanups at all.

Oil spills are expensive to clean up--I'm sorry that I can't see this as good for the economy, but that's really irrelevant. Even if there was zero economy as measured by exchange of dollars, the oil companies are authorized to operate only if they take steps to minimize risk of oil spills and damage from spills. It's the government regulators' job to see the oil companies are held to this standard--the statement in the draft EIS seems to indicate that the regulators are not doing their job and are out of compliance themselves with the federal grant and state lease. 114-12 (Cont.)

Finally, I must state that I feel this 45-day public comment period for a project of such national and state significance is counterproductive at best and a sham at worst. I did not have time to thoughtfully review the 1,700 page draft EIS because I have been busy trying to earn a living and put up winter food in Alaska's short summer. It appears from statements in the draft EIS that the government regulators did not have time to thoughtfully review nearly 30-years of TAPS history and compare performance with promises, conditions, and stipulations in the federal grant and state lease. Why the rush on a project of such significance? Over a year ago, the Joint Pipeline Office stated that the comment period would run from July to September, but in keeping with 25 years of broken promises by TAPS operators and government regulators, the regulators have broken that promise too. 114-13

Despite all the obstacles for public testimony, I offer the following recommendations for improving TAPS operations for the next 30 years--and I believe all my comments are well within the scope of this National Environmental Policy Act hearing process. I can only support reauthorization for another 30 years if these recommendations are fully addressed and included in the next federal grant and state lease.

#1 Stiff meaningful penalties for failure to comply.

All the laws, regulations, stipulations, and oversight in the world are forever inadequate without meaningful penalties and enforcement. Monetary fines are dwarfed by enormous profits, and the regulators are certainly not going to shut down the oil flow as a penalty for noncompliance--the nation has become too dependent upon this energy source. The track record of the oil companies show that it has acted like a child who knows it is never going to be disciplined. This was not what the American public was originally promised or led to believe would happen.

Some possibilities for meaningful penalties for noncompliance by the oil companies include requirements for: 1) reporting the circumstances of noncompliance to their shareholders in quarterly newsletters as the events unfold (not after the fact); 2) CEOs 114-14

and other responsible officers of oil companies to conduct public service in the TAPS corridor communities most at risk from the consequences of the noncompliance; 3) accruing penalties with interest on a daily basis as long as the infraction occurs; and tying penalties in with the cost of the fixing the problem so that penalties are 10 times the money saved by failure to do the maintenance work in a timely manner. This latter would force owners to change perspective and view maintenance as a *cost savings* compared to prospective penalties. 114-14 (Cont.)

#2 Establish a TAPS Citizens' Oversight Group.

Following the *Exxon Valdez* tragedy in 1989, the State of Alaska created the Alaska Oil Spill Commission to investigate the root causes of the spill and recommend changes to the oversight system. One of the Commission's central findings was that institutional complacency, both in industry and government, was a root cause of the spill. The Commission found that citizens were essential to an effective oversight system because they bring urgency to protecting the resources they care about and depend upon for their livelihoods. Distant bureaucrats, despite their best efforts, do not share this local perspective. To prevent future complacency, and thereby prevent future disasters, the Commission recommended creation of citizens' advisory councils for the marine and overland segments of Alaska's oil transportation system. We only have citizen oversight of the marine portion of TAPS--the tankers and tanker terminal--and it has proven the wisdom of the Commission's finding. It is time to apply the lessons learned to the overland pipeline.

As a requirement of renewal, the grant and lease should establish a TAPS COG that would operate completely independently of government regulators and industry: incorporating government and industry into "citizen oversight" creates an oxymoron. The TAPS COG should make recommendations directly to the Department of Interior (DOI) and to the Department of Natural Resources (ADNR) or their designees. The COG should be funded through the DOI by the permittees as part of the cost of TAPS operations, and all members of the TAPS COG and their staff should be paid for their services. The COG contract should be negotiable on the same timeframe as the right-of-way permit; i.e., 30 years. 114-15

#3 Charge penalties if more than 10% of employees are afraid to speak out.

Industry employees are the public's front line of defense in reducing oil spills. The workers know what is wrong and how to fix it. They need to be allowed to do their jobs free of harassment and intimidation. All personnel--and particularly the quality control inspectors--need to be independent of pressure from Alyeska and its owners to provide the reliable comprehensive quality assurance program promised to the public. Such a 114-16

program is critical to TAPS integrity as the pipeline ages, because increased maintenance costs will compete with oil company profits: workers need to be able to report maintenance problems without fear of reprisal.

The nuclear regulatory industry closes facilities if more than 10% of plant employees are afraid to speak out because of reprisals, harassment and intimidation. A similar standard should be adopted for TAPS operations, with annual independent surveys of workers to determine work conditions. Instead of closing facilities, stiff penalties should be applied, and public service by company officials and reporting of noncompliance to shareholders required (see Rec. #1, above). 114-16 (Cont.)

#4 Require independent, long-term epidemiology studies, and short- and long-term treatment of physical and mental health effects, for workers and affected residents after major TAPS spills.

Oil spills were--and still are--an anticipated side effect of TAPS construction, operation, maintenance, and termination. That's why there are oil spill contingency plans; that's why the oil companies promised, as a condition of operating, to protect public and worker health and safety. But a promise is worth nothing without follow through: after the *Exxon Valdez* spill this promise was ignored. There was inadequate financial support to meet increased needs of mental health facilities in affected communities and short- and long-term physical health care needs of cleanup workers were unmet. This is simply unacceptable--and in noncompliance with permits.

TAPS owners should be required to pay for increased mental health care in the years during and immediately after a spill in all affected communities. This care should include focused peer listening circles to mitigate community-level emotional trauma. Since oil spill cleanups are considered a hazardous waste cleanup, long-term health care studies should be required as the health symptoms associated with crude oil exposure (long-term respiratory damage; disorders of the central nervous system, liver, kidney, blood, and skin; endocrine disruption; and immune suppression) could take years to manifest as physical health problems. Oil companies should also be required to provide chemical decontamination treatments for individuals with acute health symptoms from high body levels of crude oil and other substances present during the cleanup. Individuals who become disabled from overexposure to chemicals present during the cleanup should be compensated by the oil companies, as should the estate of individuals who die from overexposure to chemicals present during the cleanup. 114-17

#5 Require independent verification of spill volume as a condition of lease renewal.

Spill penalties for damages to natural resources such as fish, wildlife, public lands held in the public trust are based on the volume of oil spilled--as reported by the spiller. One way to reduce the risk of spills and resulting damage to the environment and worker and public health and safety--one of the promises of the original agreement and right-of-way leases--is to penalize TAPS owners, or responsible parties in the case of a TAPS tanker spill, for the correct amount of oil spilled. 114-18

For example, Exxon underreported how much oil it spilled. In an unpublished investigation on file at the Alaska Resources Library and Information Services, the State of Alaska found Exxon spilled about 35 million gallons. Exxon paid the American public one billion dollars for damage to public resources from a supposedly 11 million-gallon spill: by underreporting its spill by one-third, the company only paid for one-third of the damages and essentially saved itself two billion dollars.

Independent verification should be required as a new condition of lease renewal. Further, stipulation should specify that government regulators and citizen oversight councils, either separately or jointly, conduct the assessment and agree upon the volume spilled before spill penalties are assessed. 114-19

#6 Thoroughly review and update the original right-of-way grants and stipulations in light of past experience, current science, new technology, new laws, and public comments.

The federal grant and state lease are three decades old and no longer reflect current science, technological advances, and law changes. For example, global warming and melting permafrost threaten to make at least one-third of the 77,000 vertical support members of the TAPS unstable with potentially catastrophic effects on the pipeline. Studies from the *Exxon Valdez* spill show that oil is 1,000 times more toxic previously thought, and that it can cause long-term environmental damage. Federal laws are still based on outdated research from the 1970s and 1980s and are grossly under-protective of fish and wildlife. This makes the original promises to protect fish, wildlife, and habitat even more important as basically these promises mean the owners and TAPS regulators will take measures *beyond existing laws* in order to protect fish and wildlife, habitat, and other subsistence needs. 114-20

Further, the original grant and lease agreements were signed by some companies that no longer exist because of mergers and buyouts. I assume, but would like proof, that the new companies are signatories to the current right-of-way grants and leases. 114-21

#7 Grant and lease renewals should be made conditional on satisfactory completion--within 12 months of the renewal--of an independent field-based evaluation of the entire TAPS including hardware and management.

In 1993 a series of independent and industry audits found TAPS was in an imminent state of collapse with several major system wide problems including hardware problems, technical issues, and management issues. 1994 was proclaimed to be the "year of fixes" by the Alyeska president at the time, but fixes proved elusive. For example, the highly touted fiber optics cable, which was supposed to replace the old communication system, didn't work as planned and was quietly shelved. 114-22

No one knows how many problems were actually fixed of those disclosed in 1993, or what new problems remain unfixed because there has not been any independent audits of the TAPS since 1993. This is not acceptable for a system that provides a significant portion of the nation's energy demands and the bulk of the state's operating revenues, and can wreak environmental, social, and economic havoc on Alaska's communities, residents, and federally recognized tribes.

#8 Grant and lease renewals should be made conditional on satisfactory completion of annual independent audits of TAPS operations and management and 5-year in-depth independent field-based evaluations of the entire TAPS, including hardware and management. 114-23 114-24

I am concerned that the recommended alternative--to renew the permits for another 30 years--is way to long for this particular pipeline: it is essentially double its design life. If reauthorization is granted, it should be made <u>conditional</u> upon satisfactory completion of independent audits every year with in-depth audits every 5 years as stated above. The Prince William Sound Regional Citizens' Advisory Council has to pass an annual audit and review of operations to be recertified. Nothing less should be expected for the entire TAPS, which has much more at stake than the advisory council!

#9 Immediately escrow TAPS DR&R funds and use interest to finance the TAPS COG and other measures to improve protections for environment, fish and wildlife, and worker and public health and safety. 114-25

Funds intended for future dismantling, restoration, and removal of the TAPS have been collected from TAPS oil companies and passed through to parent companies, resulting in enormous profits--and no pot of money for future DR&R. This is a breach of public trust--and yet another example of corporate irresponsibility and accounting fraud. Government regulators need to take immediate action to remedy this problem.

I want these funds to be escrowed now--before any grant and lease renewals--as a sign of good faith efforts and intention by oil companies and government regulators to the American public. The public was promised this once: we don't need to be promised it twice. Further, earnings from the funds can be pledged towards payment for fulfilling other stipulations under the original agreements--such as protecting the environment, public resources, and worker and public health and safety.

#10 Transfer of TAPS operations to single source with no North Slope production.

The oil company owners consistently cut costs on TAPS operations and maintenance to increase their profits. This dynamic has created an internal conflict of interest, essentially, between the owners and the public interest. While the oil company permittees promised in the right-of-way leases to take all 'reasonable' or 'appropriate and adequate' steps to protect the environment, fish and wildlife, and public and worker health and safety, these adjectives are relative when viewed from different perspectives. What seems reasonable to the oil companies, who measure the cost of prevention against their profits, may not seem reasonable to the public, especially those who measure the cost of spills against their livelihoods and health. The track record shows that the oil companies have profited handsomely at the public's expense.

By transferring the operation, maintenance, and termination of TAPS to a single source with no North Slope production, the internal conflict of interest is broken. This operator would take more 'reasonable' steps, from the public perspective, to reduce its liability from spills by attention to TAPS operations and maintenance. Performance bonds could be required for additional protection of the public interest. 114-26

Summary of Concerns

We are going to have to get very creative to prevent a pipeline spill. We can't keep doing the same thing we have done in terms of TAPS operations and maintenance for the past 25 years. To continue past practices is to virtually guarantee a major spill in the TAPS corridor. 114-27

I ask that you give serious consideration to my comments. And I restate my position: I can only support TAPS reauthorization for another 30 years if these recommendations are fully addressed and included in the next federal grant and state lease.

Sincerely,

Responses for Document 00114

00114-001: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

APSC's oil spill response capabilities and plans for TAPS are summarized in Section 4.1.4 of the EIS and explained in detail in the "TAPS Oil Discharge Prevention and Contingency Plan" (APSC 2001g) for the pipeline and in the "Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan" (APSC 2001h) for the VMT. The Plans provide for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline or at VMT. They are available to the public through various libraries in several major cities in Alaska. Oil spill prevention and response capabilities and related activities specific to the Copper River Drainage area are discussed more fully in the text box, "Oil Spill Planning for the Copper River Drainage," in Section 4.4.4.3.

00114-002: Based on lessons learned from the Exxon Valdez spill, a number of improvements have been made (e.g., the creation of the Ship Escort Response Vessel System (SERVS) and phase-in of double-hull tankers) that will reduce the likelihood of a catastrophic tanker accident and the expected outflow given an accident.

Shortly after the Exxon Valdez oil spill, A National Transportation Safety Board report stated that had the Exxon Valdez been fitted with a double hull, "the risks of an oil spill owing to collision or grounding would have been significantly reduced."

00114-003: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00114-004: The JPO produced TAPS engineering report No. 00-E-018, Valdez Marine Terminal Ballast Water Treatment Plant: Compliance with Agreement and Grant Section 23 (May 24, 2000). The report satisfies the 5-year review process.

00114-005: Potential health impacts associated with ambient concentrations of benzene, toluene, ethyl benzene, and xylene (BTEX) in Valdez area under the proposed action (at the crude oil throughput levels of 0.3, 1.1 and 2.1 million bbl/day) and other alternatives were estimated on the basis of conservatively high ambient concentration estimates of BTEX and other toxic air pollutants emitted from the BWTF and other sources at the Valdez Marine Terminal (Sections 4.3.13, 4.5.2.13, and 4.6.2.13). These ambient concentration estimates are based on the ambient BTEX concentrations monitored during the 1990-1991 personal and ambient monitoring studies and the tracer studies conducted in the Valdez area when both the vapor emissions from tankers and the BWTF were released. Exposures to these concentrations during the 1977-2003 period were factored into estimating the lifetime residential cancer risks (Table 4.3-4).

00114-006: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent's office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00114-007: The federal action addressed in this EIS is renewal of the right-of-way for the TAPS. While renewal would result in continued operation of oil tankers in Prince William Sound, that activity is beyond the limits of the right-of-way corridor and is not under the jurisdiction of the BLM. Moreover, the BLM has no authority over oil spill cleanup and damage assessment within Prince William Sound. Regulation of activities associated with the transport of oil by tankers in Prince William Sound is under the jurisdiction of the U.S. Coast Guard and the U.S. Department of Transportation. Analysis of impacts to fish and wildlife in Prince William Sound is included in the EIS to provide a perspective within which the direct and indirect impacts of the proposed action and alternatives to it are addressed.

The BLM and member agencies of the JPO enforce a number of stipulations that are protective of fish and wildlife resources within the right-of-way corridor. The EIS analysis did not find any significant impact to fish or wildlife resources associated with TAPS operations and maintenance within the right-of-way corridor.

00114-008: As stated in Section 4.4.4.7 of the EIS, "Human Health and Safety," the assessment of impacts from spills is limited to the general public and does not include occupational exposures to cleanup workers generally or TAPS employees at the Valdez Marine Terminal. Protection of these workers is regulated under the Occupational Health and Safety Act and is beyond the scope of this assessment. Nevertheless, this section of the EIS discusses the concerns expressed in your comment about the allegations of workers who participated in the Exxon Valdez oil spill cleanup operations.

00114-009: Any information regarding potential hazards associated with TAPS should be provided to the JPO.

The Valdez Marine Terminal has a number of fire protection systems and fire protection capability was considered in preparing the EIS. See the text box in Section 4.3.13.1 for a description of fire detection and response features.

Build up of waxy solids in tanks at the Ballast Water Treatment Facility has received considerable attention by JPO and APSC, as well as citizens groups such as PWS RCAC. There is concurrence on an appropriate course of corrective action; see the text box in Section 4.3.13.1.3.

APSC's oil spill response capabilities and plans for TAPS are summarized in Section 4.1.4 of the EIS and explained in detail in the "TAPS Oil Discharge Prevention and Contingency Plan" and in the "Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan." The Plans provide for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from anywhere along the pipeline, including the river crossings, or at the VMT. The Plans are available to the public through various libraries in several major cities in Alaska during the plan review period. These documents are updated and reviewed by various State and Federal agencies periodically ranging from every year to every 5 years. The substantive elements of the contingency plans are controlled by ADEC rules (18 AAC75), which include provisions for public review and comment as part of the plan update procedures. The lessons learned from occurrences such as EVOS and the MP 400 bullet hole incident are incorporated into the documents when they are updated.

00114-010: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00114-011: It is correct that the effects of aging have the potential to impact the integrity and reliability of any mechanical system. However, age alone does not dictate reliability or performance. Myriad factors can impact system performance. For example, the manner in which mechanical systems are operated and maintained can greatly influence their long-term integrity, reliability, and performance.

Utilizing its oversight authority, the JPO ensures that APSC's operating and maintenance procedures take all potential impacting factors into account and are sufficient and appropriate to maintain TAPS integrity. The JPO also has the authority to direct APSC to undertake changes, repairs, or upgrades when that is not the case. Under the reliability centered maintenance (RCM) program, all TAPS subsystems are being carefully evaluated for the consequences of their failure and will have maintenance regimens or remanufacture, overhaul, or replacement schedules established that preclude such failures from occurring, if they would have an adverse impact on public safety or the environment.

The text box in Section 4.1.1.8 provides a synopsis of the MP 400 bullet hole incident. Details of the spill and the response are provided. Changes to the pipeline's spill contingency plan that are being made as a result of lessons learned are also discussed.

Each of the three spills that occurred on start-up after a maintenance-related shutdown have been carefully evaluated, and causal factors have been identified. The JPO has required APSC to revise its shut-down and start-up procedures to prevent reoccurrence. APSC is also required to conduct drills on its procedures to ensure they are correct and complete. Also, APSC has made modifications to piping at pump stations to enhance cold restart capabilities. Summaries of the three incidents are included in CMP Report #11, issued in April 2002. See also Section 4.1.1.4.

00114-012: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00114-013: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00114-014: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00114-015: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00114-016: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's employee concerns program (ECP) and that APSC has undertaken considerable efforts to improve and refine their ECP program.

The BLM and JPO expects to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public report issues and concerns about TAPS. Recorded messages are checked daily by BLM-Alaska Special Agent's office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protection and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00114-017: Section 4.4.4.7, Human Health and Safety, provides a detailed analysis of the potential effects of oil spills on human health. The BLM and member agencies of the JPO are committed to the protection of human health and the environment. The Federal Grant and authorizing legislation (TAPAA) provide unprecedented authority to BLM in assuring the protection of human health and the environment. Stipulations (the guiding conduct of operations for the operator of TAPS) within the Federal Grant contain numerous provisions that are protective of human health and the environment. If new data or information emerge that point to the need for further studies on the health effects of TAPS operations, these studies will be initiated by JPO.

00114-018: The BLM and the member agencies of JPO investigate all significant spills to assess lessons learned and potential mitigation. There has been no evidence to date that past spill volumes have been reported inaccurately. If natural resource damage claims occur because of a spill, the U.S. Fish and Wildlife Agency or National Marine Fisheries Service conduct studies to evaluate damage to natural resources.

The BLM does not have the legal or regulatory authority to impose fines on the operator of TAPS; however, the DOI Secretary can impose fines up to $1000/barrel under OPA 90.

00114-019: The BLM and the member agencies of JPO investigate all significant spills to assess lessons learned and potential mitigation. There has been no evidence to date that past spill volumes have been reported inaccurately. If natural resource damage claims occur because of a spill, the U.S. Fish and Wildlife Agency or National Marine Fisheries Service conduct studies to evaluate damage to natural resources.

00114-020: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00114-021: Section 1.1 in the EIS lists the current owners of the TAPS in a discussion about the application for renewal of the right-of-way grant.

00114-022: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00114-023: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00114-024: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00114-025: The reader is directed to the discussion of escrow funds found in Section 2.5.

00114-026: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00114-027: The operational history of TAPS, maintenance activities, spill response capabilities, and the potential for spills associated with TAPS were considered in the analysis. Impacts associated with potential spills are discussed in Sections 4.4 of the FEIS.

The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

APSC's oil spill response capabilities and plans for TAPS are summarized in Section 4.1.4 of the EIS and explained in detail in the "TAPS Oil Discharge Prevention and Contingency Plan" (APSC 2001g) for the pipeline and in the "Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan" (APSC 2001h) for the VMT. The C-Plans provide for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline or at the VMT. They are available to the public through various libraries in several major cities in Alaska.

The C-Plans are updated periodically and lessons learned from actual occurrences as well as from regular exercises conducted along the pipeline and at the VMT are incorporated into the Plans. See the text box in Section 4.1.1 for a discussion on how lessons learned in response to the vandalism incident near Livengood in October 2001 have resulted in modifications and improvements to the C-Plans for spills and releases along the pipeline. In addition, the C-Plans are reviewed periodically by the BLM, ADEC, DOT, and EPA. As part of this process, APSC and the federal and state agencies with oversight responsibilities for TAPS make sure that the appropriate emergency response equipment is made available along the TAPS.

TAPS RENEWAL DEIS PUBLIC HEARING

Cordova, Alaska

July 26, 2002

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P R O C E E D I N G S

(Cordova, Alaska - 7/26/2002)

HEARING OFFICER GEARY: All right, I'm going to bring this hearing to order.

Good evening. My name is Dennis Geary and I am the Hearing Officer assigned to preside at this hearing. The purpose of this hearing is to receive public comments concerning proposed renewal of the Right of Way for the Trans-Alaska Pipeline System. We invite comments on the following three documents related to that proposal:

1. The Bureau of Land Management Draft Environmental Impact Statement.

2. The Evaluation and Finding regarding subsistence under Section .810 of the Alaska National Interest Lands Act which are contained in Appendix E of the Draft Environmental Impact Statement.

3. The State of Alaska, Department of Natural Resources Commissioner's Statement of Reasons and Proposed Written Determination, Trans-Alaska Pipeline Right of Way Lease Renewal ADL63574.

It's not the purpose of this hearing to engage in a discussion or debate or to respond to questions about the Draft Environmental Impact Statement, subsistence or the Commissioner's Determination or the

Trans-Alaska Pipeline system.

In addition to myself, State and Federal representatives from the Joint Pipeline Office are here to listen to your comments. Those folks are Jerry Brossia, authorized officer for the Joint Pipeline Office, Bureau of Land Management.

MR. BROSSIA: I'd like to welcome everybody here tonight and we're happy to hear your comments on the Draft. I'm the authorized officer for the administer the Right of Way assignment. And with me tonight is Rhea DoBosh, she's with the State of Alaska

MS. DOBOSH: Good evening. Thank you for coming very much. We appreciate you taking your time out of your busy schedule. I'd like to introduce Kaye Laughlin, who is representing the Division of Governmental Coordination this evening.

MS. LAUGHLIN: And I thank everyone for coming.

HEARING OFFICER GEARY: Notice of availability of the Draft Environmental Impact Statement on the TAPS Right of Way Renewal appeared in the Federal Register on July 5th [sic], 2002 in Volume 67, Number 129 at Page 44832. The State of Alaska also provided notice of the availability of the Commissioner's Proposed Determination on July 3rd, 2002. Notification about the

date, time and location for this hearing as well as the six other hearings scheduled to receive comments on the Draft Environmental Impact Statement, subsistence and the Commissioner's Proposed Determination was announced in the media, including newspaper, radio and the internet.

In addition, notices about the hearings were sent to individuals and organizations that have requested to be kept informed about this project. If you would like to be on that list, to receive information about this project, you can sign up at the registration table.

Both oral and written comments will be taken tonight. In addition, comments can be submitted to BLM by fax, by mail, telephone, the internet or hand-delivered to the Joint Pipeline Office in Anchorage. The State will accept additional written comments sent by mail, fax or e-mail. We will accept additional comments received or postmarked by August 20th, 2002, which is currently the closing date of the public comment period for the Draft Environmental Impact Statement and the Commissioner's Proposed Determination. Information for providing additional comments is on the registration table at the back of the room. All oral and written comments received by the end of the public comment period will be treated equally and will be analyzed and

considered in the preparation of the Final Environmental Impact Statement and the Commissioner's Final Determination. In addition, both the Final Environmental Impact Statement and the Commissioner's Final Determination will contain written responses to the comments received on the respective draft documents.

In order to ensure a complete and accurate record of the hearing, it's necessary that only one person speak at a time. It's also requested that everyone remain as quiet as possible when the hearing is in process.

If you wish to speak, you'll need to sign in please at the registration table first. Speakers will be called in the order in which they're registered. In the event that a speaker is not present when their name is called, I'll simply proceed on to the next name and I'll call that person's name later on. In order to give everyone who wishes to speak an opportunity to do so we have limited the time for each speaker to 10 minutes. This light box will help you know when your time is nearly up. The light will turn green as you start, it will turn yellow when you've got a minute left t speak and it will turn red and there will be an audible sound when your time is up.

A court reporter will record the oral

comments and prepare a verbatim transcript. If you have an extra written copy of your comments, please provide that to the hearing officer so that in the event we need to clarify any of your comments, we can do so. In any event, your remarks will be recorded as you state them. If you wish to supplement your oral comments with additional written material, please provide that material tonight to the hearing officer and it will be marked as an exhibit and made a part of this record of this hearing.

All right, are there any questions regarding the conduct of tonight's hearing?

When I call your name, please come forward to the microphone, state your name, the organization that you represent, if any, and whether you're also providing written comments. Also, for administrative purposes, please state whether you're commenting on the Draft Environmental Impact Statement, whether you're commenting on subsistence or whether you're commenting on the Commissioner's Proposed Determination.

I'd also like to just note for the record that Nancy Bird, vice-mayor, is here tonight with us and is so far not signed up to speak.

All right, if there's no questions then

the first name I have and, pardon me, I hope not to slaughter anyone's name too badly, Tom Kuckertz. 00115

MR. KUCKERTZ: Hi. My name is Tom Kuckertz and I'm on the staff of the Prince William Sound Regional Citizen's Advisory Council. And we have come over here to Cordova to make some comments. We'll probably also see you in Valdez.

Basically we note that the DEIS is a big document, 1,700 pages, many hundreds of literature citations and that the preferred renewal period is 30 years. And we also note that this may become the greatest single source of reference data on TAPS. So right or wrong, it may become the last word in publicly available information. So we're concerned about whether it's complete and whether it is without errors. And we note, for example, that, you know, we found two errors that we think need to be corrected. One is that there's a statement about the benefits of the Exxon Valdez Oil Spill outweighing the damage caused to tourism and fishing. And we believe that this is incorrect. We also note that the most important or impact cited is one of economics and we believe that is also incorrect. 115-1 115-2

Basically the time period for the public comment period, we believe is too short. It's nearly impossible for anyone to review a document of that size 115-3

with hundreds of literature citations and, you know, we don't have the supporting documents in many cases. A lot of citizens are out, you know, doing their summertime activities so it just really isn't enough time. And RCAC, along with the Trustees for Alaska has requested an extension. 115-3 (Cont.)

We also believe that there were some issues excluded from the scope. For example, the ownership issues were excluded, you know, can the owners have an effect on environmental impact. We believe that they can, it can be good or bad depending on what resources they bring. And also the renewal conditions, we believe there should be renewal conditions requiring that TAPS be operated and maintained in accord with the assumptions underlying the predictions of future impact that are in the DEIS. You know, for example, the Exxon Valdez Oil Spill would have had much less impact if the resources supposed to be available were actually available to combat that spill. So we also would recommend that regulatory enforcement tools be included in any reissuing of the draft to ensure a regulatory compliance. 115-4

In addition, we believe the DEIS overlooked the environmental impact of citizen's oversight groups. For example, the contingency plans are 115-5

much more detailed, we believe are much better for the Prince William Sound portion and VMT portion of the TAPS than it is for the pipeline itself. And we believe the reason for that is that there is no citizen's oversight. So the RCAC is in favor of a citizen's oversight group for the pipeline. 115-5 (Cont.)

The quality of raw data. There's a lot of raw data in there and we don't know if this data's correct. A lot of it's been provided by Alyeska and the owners. There's a lot of personal communications, which have been somewhat hard to track down. There's considerable citation and reliance upon the TAPS owners, 2001-A, this is the Draft Environmental Report provided by the owners. We believe that there's other data that should have been considered. For example, more recent literature has been overlooked. These include studies by the National Oceanographic and Atmospheric Administration and the Auke Bay Laboratories. For example, with respect to toxicity. Studies funded by the oil industry seem to have been favored, e.g., the TAPS owners Environmental Report. Contradictory studies funded by others seems to have been overlooked, e.g., dispersants, oil toxicity and perhaps lingering effect of the Exxon Valdez oil. And there's a big controversy going on right now between the Auke Bay Laboratory and some of the folks funded by the 115-6

industry with respect to whether or not there are any lingering effects. 115-6 (Cont.)

TAPS, you know, changes, in other words, the oil -- there's a design basis for operation of TAPS. And Environmental Impact Statement presumes that this design basis is how TAPS is going to operate. It does not seem to operate or does not seem to have considered if the TAPS is not operating in accord with its design basis. For example, the Balast Water Treatment Facility has a gravity separation process that is now operating at 50 percent of capacity. It has been operating with decreased capacity for a number of years now. This was not considered, I don't even think that the people doing the EIS knew about it. But how does that, you know, effect environmental impact. 115-7

There's also interpretation of data to produce conclusions regarding environmental impact that we do not believe that the conclusions necessarily follow some of the analysis. For example, there's a connection between raw data and impact conclusions are not clear. For example, DEIS reports a current fleet of 26 tankers, three with double-hulls will reduce to eight to 10 tankers by the year 20/20. Now, this data has some errors in and of itself, for example, there are 25 tankers and seven of them have double-hulls and by 115-8

double-hulls we mean tankers that do not have OPA90 retirement dates. And it is predicted that there'll be a substantial deduction in annual probabilities of accidents and spills based on the fact that you now have this lower number of tankers. But was it considered is the risk really reduced if a minimal number of tankers is attempting to carry one million barrels per day and the owners are resisting further investment in TAPS anticipating a 2034 shut down. In other words, they make the cite they don't want to put anymore money into TAPS and operate as far as they can go without the investment required to preserve the environment. 115-8 (Cont.)

There's also a qualitative versus quantitative nature of the impacts. For example, the Exxon Valdez type incident is assigned a probability of occurring once every thousand years or a hundred thousand years. Yet, we know that one has occurred in the last 25 years. You know, how is this probability assigned for such a rare event knowing that one has already occurred. 115-9

And then there is the equivalence of regulatory compliance and lack of environmental impact. And for example, compliance with environmental regulations is cited as evidence of minimal impact. Well, the fact that you're in compliance with regulations does not mean that there is no impact. These are 115-10

entirely separate issues. And impact assessment needs additional metrics, especially when industry has assisted in the development of the regulations. And typically industry assists in exceptions to the regulations rather than development. And examples of these might be the NPDES permit for the Balast Water Treatment Facility. The Title V air quality permit and the regulations for organic liquid distributions. For example, in that particular regulation, the Valdez Marine Terminal is exempt from any emissions they might omit either from wastewater or from the Balast Water Treatment Facility or crude oil itself is exempt.

115-10 (Cont.)

And then finally there is transparency of TAPS operational processes. We cannot see how these processes work because we need the data to be provided by, you know, the industry itself and even JPO has trouble getting the data it needs to know how that pipeline is operating.

With that, I thank you for accommodating our remarks.

HEARING OFFICER GEARY: Thank you. Scott Metzger.

00116

MR. METZGER: My name's Scott Metzger. I live in Cordova. I'll just read these comments I prepared last night about the Draft Environmental Impact Statement.

It is my understanding that the Trans-Alaska Pipeline System has outlived its 30 year life expectancy. It is obvious that the pipeline is aging and not very gracefully judging by the number of operational problems and shutdowns and small spills that the pipeline has had over the last couple of years. It is reasonable then to assume that if the pipeline is not already showing serious signs of wear and tear, it will in the very near future. It is absolutely critical that the proper safeguards be put in place now to ensure the safe operation of the pipeline should the Right of Way lease be renewed. 116-1

The Alaska Forum for Environmental Responsibility in its report, The Emperor's New Hose, details some of the serious operational and maintenance problems facing Alyeska and the pipeline over the last couple of years. In this report they make six recommendations about how to change and improve pipeline operations and they insist that these changes be implemented prior to the grant and lease renewal of the Right of Way lease for the Trans-Alaska Pipeline system. These six recommendations include:

1. There needs to be a citizen's oversight council established to oversee the operations of the pipeline. We have the Prince William Sound 116-2

Regional Citizen's Advisory Council to oversee tanker operations at the port of Valdez in Prince William Sound and we want a citizen's advisory council for the entire length of the pipeline as a condition to the renewal of the Right of Way lease. 116-2 (Cont.)

2. The Trans-Alaska Pipeline system owners should be required to place the dismantling, removal and restoration funds directly into an escrow account so that they no longer continue to profit off of these funds and a portion of these funds should be used to fund the citizen's advisory council. 116-3

3. The grant and lease renewal should be made conditional upon satisfactory completion of an independent audit and technical review every five years for the duration of the life of the pipeline. 116-4

4. The ownership of the pipeline should be transferred to a single owner with no connections to North Slope crude oil production. 116-5

5. A viable employee concerns program must be established and implemented within Alyeska prior to the grant and lease renewal. 116-6

6. The Federal and State lease stipulations should be reviewed and updated to reflect the current scientific and technological advances and understandings that have been made during the last three 116-7

decades.

These are the recommendations made by the Alaska Forum for Environmental Responsibility and I support them 100 percent also wish them to be implemented before the grant and lease renewal is approved.

116-7 (Cont.)

Cordova's a fishing community whose life blood is the Copper River. The fishermen and women here rely on the healthy and intact spawning habitat that is found in the Upper Copper River watershed and its tributaries to assure continued returns of fish. The Trans-Alaska Pipeline system dissects the entire Copper River watershed and crosses over or under 76 anadramous streams. If the spawning habitat is compromised in a serious way such as with an oil spill and to the Copper River or one of its tributaries the economic and environmental consequences could be devastating for Cordova and all of the other communities in the Copper River watershed. It's absolutely critical that the pipeline be held to the highest possible operational standards and that the employees who operate it feel confident that it is running smoothly and if it is not, they are not afraid to speak up to their bosses. It would be impossible to clean up in a timely manner an oil spill that dumped oil directly into the Klutina River, for example, so hence the reason for the five year

116-8

independent audits to assure that the pipeline is operating mechanically as well as is possible to prevent any accidents. 116-8 (Cont.)

As far as an oil spill contingency plan for the overland portions of the Trans-Alaska Pipeline system, particularly the Copper River watershed, they are sorely inadequate or lacking. If there were an earthquake that ruptured the pipeline, there is no way that Alyeska, the State or the Feds could mobilize clean up operations in a timely enough manner that would make a difference. Once it has happened it's too late. 116-9

Having the pipeline running through the Copper River watershed is like having a gauntlet over our heads just waiting to drop.

Two final points, I believe there needs to be permanent air quality monitoring in Valdez. Every time I go there, especially in the winter, you can see the blue smoke lingering in the air from the oil tankers. This should be implemented as a condition to the leases renewal as well. 116-10

And finally, I would like the public comment period for the Trans-Alaska Pipeline system grant and lease renewal to be extended and public scoping meetings need to be held in more communities in Alaska and nationally. 116-11

Thank you very much for considering my comments.

HEARING OFFICER GEARY: Thank you. Walter Parker, DEIS. Is Walter here? 00117

MR. PARKER: Yes. I thought I was further down on the list. My name is Walter Parker. I'm a board member of the Forum for Environmental Responsibility.

My testimony here tonight is based on my personal history with TAPS going back to 1968 when oil was discovered at Prudhoe and when I first got involved in environmental assessment, design, review and stipulation and I moved forward from that until Bill Egan, then governor, asked me to serve as his environmental consultant on TAPS and I also became director of the technical staff for the State Pipeline Coordinator's Office and went through that. Also commissioner of highways to keep track of what went on in the construction of the Dalton Highway. I was chair of the Oil Tanker Task Force. And in 1989 I became chair of the Alaska Oil Spill Commission that investigated the wreck of the Exxon Valdez and in 1991, chair of the Alaska Hazardous Substance Spill Technology Review Council.

Compared to the process we undertook

prior to the construction of TAPS, the present review appears minimal, both in its scope and the time devoted to it. A renewal is being requested for an additional 30 years for a pipeline that has been operation for 25. Without doubt, the reliability centered analysis, 23 on the Valdez terminal and 25 on the pipeline have an enormous amount of information contained in them. However, in the time period involved it is very difficult for the interested public to obtain even a smidgeon of that information without highlighting the problem areas section by section. For myself, I am primarily concerned with corrosion, vertical support members and valves. The status of these at river crossings is obviously of particular concern. 117-1

My memories are of similar large piles of paper similar to the present Draft EIS and accompanying documents and endless file cabinets with which those of us with oversight responsibilities faced at the beginning of construction. Our initial activities were concentrated on the haul road where massive discrepancies in permafrost location that were not recognized in the computer designed highway occupied us throughout the summer. I'm now on a permafrost task force for the U.S. Arctic Research Commission and also chair of the Circumpolar Infrastructure Task Force for the Arctic 117-2

Council. I am briefed on the continued development of the Arctic Climate Impact Assessment several times a year and believe me, it is true that things have been changing very rapidly in the areas affected by permafrost in the past two decades. As can best be determined now the process is accelerating with some rapidity. I know that the owner companies of TAPS are conducting examinations of this but this information is not available as yet for review by U.S. or international permafrost experts. The JPO has identified a good many of the problems with the above ground sections but I believe the scope of the problem is under estimated at present. At the beginning of TAPS construction a great deal of emphasis was placed on the quality assurance, quality control program specified in Section 9 of the Federal grant and Section 16 of the State lease. Now, RCM reliability centered maintenance is brought out as a means by which we can be assured that the pipeline will be maintained safely for 30 years. QA/QC did not provide the assurance needed on the pipeline and certainly did not foresee the first major problem such as the faulty welding procedures which were discovered by the State office in the spring of 1975 after checking those segments that were being welded in the pipe storage yard. The procedures had been adjusted so that the newest members of the Tulsa union that

117-2 (Cont.)

117-3

controlled pipeline welding in the country could do the down welds. QA/QC came in to defend them but could withstand the questioning of our consultant who was a cajun, not very literate but who had tremendous experience in welding on offshore platforms, among other things.

RCM is just another phrase until the quality of the oversight and of the Alyeska maintenance force is examined and the budgets which will support those efforts are known. We have already heard from the head of BP about the future of maintenance budgets, nothing was said by government policymakers or regulators in response. The development of the stipulations involving seismic risk at times in design development had 40 people, the best in the world in the room when they were finalized. Due to the massive USGS efforts of the past 20 years, the science of seismology has advanced dramatically. I find nothing in JPO or Alyeska documents that indicates that a complete new look has been taken on the seismic problems of the pipeline. 117-3 (Cont.)

Getting back to the river crossings, where one expects the absolute the top of the state of the best practice and best technology to be employed. I will provide you with a little history of my role at the State office, I had to sign off on the bridges later. As

Highway Commissioner, I continue to have the Yukon River Bridge as a responsibility. During bridge construction I was advised that a massive fracture had been found in the bedrock under one of the piers. I climbed down in the caisson to look at it and after intensive consultation, reluctantly gave the go ahead to inject epoxy in the fracture. The same system had been approved at the terminal to hold together the rocks under the tank farm. I have faith in epoxy when relatively new. Where is the research that supports continued reliance upon it 27 years after it was injected at the terminal and the Yukon River Bridge.

We made a reasonably good try at using the top of the state of the art and engineering and science when we constructed TAPS. Unless I hear a good deal more than is contained in present documents about upgrading the stipulations to recognize the advances over the past 30 years in the critical areas that I have addressed, I will continue to have grave apprehensions about the ability of RCM or any maintenance regime to mitigate risks unless very firmly regulated and very well financed. As chairman of the Alaska Oil Spill Commission, I submitted a 1,300 page report to the State of Alaska and the United States on the collapse of Alyeska management oversight and the collapse of the

117-3
(Cont.)

State and Federal regulatory regimes. Congress adopted 50 of our 52 recommendations in OPA90. The present situation is certainly not as bad as it was in the 1980s but still needs a lot of improvement, which is addressed in Richard Fineberg's report, the Emperor's New Hose and in his previous reports. I am seriously afraid that if the renewal is allowed to slip through without the kind of review requested in our reports that it will be taken as a signal, by both industry and regulators that this is indeed the best of all possible worlds and what can go wrong. This is the kind of thinking that led to Exxon Valdez, to the Challenger incident and to Three-Mile Island, all of which we examined at the Oil Spill Commission.

117-3
(Cont.)

RCM is too thin a reed upon which to place one's faith for the next 30 years without a firm and uncompromising section by section analysis of the present problems by an independent audit. I will not repeat the recommendations of the Alaska Forum here but since I had a hand in developing them I strongly support each and every one, most importantly the request for the independent audit similar to what was done on Exxon Valdez and the need for a citizen's oversight council.

Thank you.

HEARING OFFICER GEARY: Thank you, sir. Stan.

00118

MR. STEPHENS: My name is Stan Stephens and I'm from Valdez, Alaska. I represent AFER. And I really kind of will barely touch on all three of the issues. All that's come before you tonight, I totally agree with and mostly with Walt.

I have to ask the question, you know, I've been involved for 13 years in trying to do citizen oversight of the marine terminal and I've also been very concerned about the pipeline end. What I can't understand is why, when we have a study that has taken almost five years to complete or been that long by different parties, not by Argonne, but by different parties before Argonne, what is the hurry? Why are we in such a rush to not let the citizens have more than 45 days? It's totally ridiculous and it's an insult to the citizens of Alaska. And I can't emphasize that enough. I just can't believe that we're in that kind of rush, that we can't give the citizens of this state more time. 118-1

One of my major concerns and, Walt touched on it but I want to touch on it again, is this earth is warming up and Alaska is warming faster than any other area. All you have to do is go to Fairbanks and look at the houses that are sinking in permafrost, look 118-2

at the telephone poles that are leaning one way or the other because the soil is giving away. We have problems with ecosupport members, also are showing signs of problems. We also know that the heat units that are to cool the soil are not all working as properly as they should be. They're functioning but not at 100 percent so you probably don't have the strength in the ground that you should have as far as the cooling goes. And the valves, many of them show signs of leaking and yet, it's been 40 years, 40 years since we've had a major earthquake. Cordova remembers what that earthquake was like and so does Valdez. If the pipeline is going to withstand another earthquake and they're suggesting that it's getting closer, if it's going to stand it we have to have that pipeline in good condition. And I know that JPO has a pretty good handle on what's wrong with the pipeline and what has to be fixed but to say that Alyeska has a plan, has a maintenance plan, I've been watching Alyeska since the '70s, let me tell you they might have a plan but their budget is always cut, they're always reactive because there's always something else coming up, the citizens can't depend on that. We have to have protection.

Just take the Klutina River. Let's just take the Klutina River as an example of an issue. There

118-2 (Cont.)

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118-4

118-5

is no way on any of these rivers that flow into the Copper, 76 tributaries, streams or rivers that you can clean up an oil spill, that you can even get close to it, I suggest that you just take a box of apples, dump them in the Klutina River, give them five minutes and I'll bet you can't get an apple. And it's going to take you over an hour or more, much more than that, probably to get to an oil spill that's going to occur. This is an area that is very fluiditity, it has many problems with soil, there's just no way that we should be saying to Alyeska, we're glad you guys know about this problem and I hope some day you're going to be able to fix it down the road and we, as JPO are going to keep an eye on you to make sure you do. That's not going to get it. We need to have a total audit, starting at the North Slope because the North Slope is part of this whole system. And if any of you read the paper or keep up with it, the North Slope is a real mess right now and we don't want the pipeline to get as bad as it is. But we need a full audit of the North Slope, the pipeline and the terminal. And then we need to add a couple of things with the marine end here at Hinchinbrook Entrance and try to make that safer.

So I standby AFER's recommendations. I am president of AFER now and, I won't repeat those. But one that's not in there is the audit and we think we have

118-5 (Cont.)

118-6

118-7

to have that audit and I also think we have to have a citizen's group. And I'm not trying to say anything bad about JPO because I know a lot of the fellows that work there and I have great respect for them but they are not free from politics or lobbying or pressure. They get it all the time, they have to live with it. A citizen's group can be free of that and all a citizen's group does is advise, that's all they do is advise. And we need to have people that have a stake in that pipeline to be able to advise JPO and Alyeska and other regulators what needs to take place and what they see is the problem. 118-7 (Cont.)

And I'll just leave it at that, thank you.

HEARING OFFICER GEARY: Thank you, Stan. Kenneth Adams.

00119

MR. ADAMS: Good evening. My name is Kenneth Adams. I'm a resident of Cordova and fisherman here.

I'd like to speak frankly. I don't have the technical expertise that a number of the people giving testimony tonight do have. I do have some experience which I think is valid, though, and I'd like to speak along those lines. And speaking frankly, I would like to say I've never been to a meeting where there is such an appearance of a railroading job as there 119-1

appears tonight. And I'm talking about the notification process, for one. I'm talking about begin notified of the occurrence of this meeting in yesterday's newspaper in the Cordova Times. So the meeting follows a day later and we're expected to comment knowledgeably upon a 1,700 page document, this is ludicrous. This is utterly absurd. 119-1 (Cont.)

Secondly, I think the scheduling of the meeting in general occurs in one of the most active times in this community. This is a fishing community. At this moment there are two fisheries open, well, maybe they just closed. But the prospect of fishermen participating in this meeting has been pretty much precluded by the scheduling of fishing openers. And I'm heartened to see the number of people from the community that are present with us tonight and I think that if the meeting was scheduled at a time when the fleet could participate and I think probably even a better time for a meeting like this to be held is after fishing season, in the fall, not here right in the midst of the fishing season. If the meeting was scheduled later in the fall you'd have greater participation from this community. 119-2

I'd like to say with respect to the fisheries, we are in a slump. We've been in a slump for a number of years and the one bright star that we have in 119-3

our local fisheries is with respect to the Copper River gillnet fishery and we are aware that approximately 20 percent of the length of this pipeline traverses -- salmon streams, which are tributaries to the Copper River and we are very sensitive to the prospect of a pipeline breakage and the pollution of those streams and the consequence fouling of the Copper River watershed. So we take a great deal of interest, even on short notice of the prospect of the appearance of kowtowing to business and perhaps trying to accommodate industry concerns. 119-3 (Cont.)

And Mr. Stephens made the remark about the speed of this process and I raise the question also to you, why so darn fast in this process? Give us time. And I think if you don't take the time then I think you're going to be facing a lawsuit, quite frankly, because we won't put up with this crap. We've been through the EVOS event, we know the destruction of an event like that and the complacency of oversight upon industry, what can result from that, the EVOS is a result from that. And if there is not a true and reliable assessment of the status of this pipeline, again, by an independent audit, of which I am very supportive of, then I think we're leaving ourselves open to another repeat of a failure of a system which is going to negatively impact the environment that we depend on for our livelihoods. 119-4

So I want to make that very clear, that the speed that this is apparently going through is unacceptable. Slow the process down and let's give us a chance to talk about it and bring our hard concerns right to the floor. 119-4 (Cont.)

Thank you. 00120

HEARING OFFICER GEARY: Thank you, sir. Bruce Cain speaking on the Draft Environmental Impact Statement.

MR. CAIN: Hello. My name is Bruce Cain. I'm the executive director for the Native Village of Eyak, Federally-recognized tribe. I'm speaking on behalf of myself as a private citizen tonight. The first thing I just noticed is that there's people in the back that don't have seats and I hope we can make room for everybody.

The first thing I'd like to say is starting the meeting at 7:00 in the evening, a meeting of this importance is inconvenient at best and so I encourage everybody to tough it out, if we're here until 6:00 in the morning or 6:00 o'clock tomorrow night, we're going to stay here and we're going to do it. If we're here until next week, I think a meeting here for public testimony in Cordova should be at least two days long. 120-1

And to recho the comments that were just made during the fishing periods, a lot of people can't make it and for 120-2

that reason it should be over a couple of days and also just the amount of time that it's going to take. I think if you take the people here in this room right now and multiply it times the amount of time you're allowing for testimony we're going to be here for a long time but we're going to stay here until it's done. I encourage everybody to stay.

120-2 (Cont.)

I have a couple of comments that I'll read to you. In the scoping comments that were provided, there was a comment made that Exxon and any future responsible parties must be required to pay damages prior to the renewal and mechanisms for requiring prompt payment of claims must be included in the renewal mitigation for the damages incurred by the Exxon Valdez Oil Spill. In the environmental impact statement, it says this request is dismissed as not reasonably related to the renewal of the Draft EIS and this is not acceptable. This is appalling. And it violates the Trans-Alaska Pipeline Act, among other laws and regulations. This isn't going to fly. You better pay it or no more oil.

120-3

Over 80 percent of the Cordova residents were documented in an ADF&G survey as having participated in subsistence fishing in 1997, yet the Draft EIS states that no subsistence harvest areas exist in Prince William

120-4

Sound except in Tatitlek and Chenega. This makes no sense logically. It simply is not true. And it raises the question, this is so incorrect as to can an error of this nature be inadvertent and it raises a red flag as to what other errors of this nature are in this large document. 120-4 (Cont.)

Exxon funded research is the basis for decisions on impacts of oil spills along with TAPS technical reports. There are several instances where no other -- it's cited that there is no other research available, yet we went onto the EVOS website and in less than five minutes downloaded a report of a list of citations over 50 pages long of research funded by EVOS which is not necessarily independent research in and of itself but it's certainly more independent than research funded directly by Exxon. And there are numbers of other studies and research that they can be using in this report. Again, this type of error is so gross that you have to ask the question, can this possibly be inadvertent or there wasn't enough time to get it all done. 120-5

There's a complete lack of understanding of subsistence. It's incorrectly analyzed in conjunction with economics. The sociocultural system section lacks recognition of Federally-recognized tribes and relies 120-6

inappropriately on the Handbook of North American Indians rather than the tribes themselves for information about their history and culture. Completely and wholly inaccurate information about the Native Village of Eyak and tribal members, to state that because so few Eyak remain a discussion of the Eyak culture in the 21st Century isn't possible and raises serious questions about environmental justice and other issues. 120-6 (Cont.)

The Department of Energy funds Argonne National Laboratory who is responsible for the draft and they prepared the Draft EIS. I feel this is a conflict of interest for DOE to be preparing a Draft EIS. 120-7

And I'll throw my two cents in with the others that a 45 day extension of the comment period is appropriate, there's not enough time allowed with 45 days, it should be 90. 120-8

The other two issues that I'll bring up is the all river crossings, especially river crossings in the Copper River watershed must have valves on both sides of the rivers and you should also look at having in place boom that can be deployed by overhead cable systems. 120-9 You're not going to pull a boom across a river with a boat and it's not going to be necessarily at the pipeline crossings. You're going to need to have a place where you can deflect the oil into sand bars. None of this

kind of thinking is in there and we need to, again, with the people that are requesting the audit, I agree with that and that's the kind of thing that needs to be looked at. We need to be ready for things that we know are going to happen. 120-10

00121

That's all the comments I have.

HEARING OFFICER GEARY: Thank you, sir. Bob Henrich.

MR. HENRICH: I'm Bob Henrich. I'm president of the Native Village of Eyak. We're the largest tribe in Prince William Sound. I've been a resident here for the past 59 years.

The way they've operated this pipeline up to date can't go on. Things have to change. 121-1 The comment period of 45 days is too short. 121-2 The thought that the Right of Way ends in Valdez, that's not right, the Right of Way should actually go all the way out through Prince William Sound out to the 200 mile limit. 121-3 A lot of our people were heavily affected by the Exxon Valdez Oil Spill. There needs to be a mechanism in the next Right of Way agreement that would address damages from oil spills and have some sort of arbitration or something that could set the damages and have them paid in a timely fashion so these oil companies can't destroy people's lives and then hide behind lawyers, that's not right. 121-4

An alternative that should be considered if you cannot address, adequately address the concerns of the people who live along the pipeline and in Prince William Sound is to shut down the pipeline and get the oil out some other way because I don't want this to go on like it has been. 121-5

We need a new citizen's oversight committee that extends over the entire length of the pipeline, not just Prince William Sound and we also need a oversight group of tribes, recognized tribes who have a government to government relationship with the United States, their agencies and the state of Alaska at a higher level than ones -- that the oversight that currently exists. 121-6

And that's about all I got right now.

HEARING OFFICER GEARY: Thank you, sir. Richard Fineberg.

00122

MR. FINEBERG: Thank you. I am Richard Fineberg, Consultant for Alaska Forum for Environmental Responsibility. I want to speak about both the DEIS and the State Proposed Determination.

The Alaska Forum has charted out its interest in pipeline safety, the operations, the maintenance and the management of the pipeline and simply biting off what we can chew, we feel this has direct

bering on subsistence but we have not, with very limited resources, seen fit to go there so my comments therefore are oriented to these two areas. My comments will go beyond the 10 minutes so I will simply read until the light stops.

It is appropriate that we begin these meetings in Cordova. I recall that in April of 1977, shortly before the pipeline entered service there was a three day public meeting here at the Cordova Fisheries Institute on tanker issues. At that meeting, concerned citizens tried to convince seemingly deaf public officials and their equally deaf consulting minions to head concerns about the consequences that flow directly from the industry's understandable preoccupation with the bottom line. The focus of the hearing at the time was the tanker leg and the double-hull requirements and the bureaucratic back-stepping on double-hulls. This is 1977.

The industry at the time attempted to assure the public that single hulls were safer and that unproven double-hulls might be more dangerous than single hulls. Now, we're told not to worry about the marine leg because the double-hulls will be in place and are safer. So as the meetings progressed and the long silences as question after question went unanswered, the wind howled,

it was Cordova and the rain rattled on the windows. Twelve years later I was sitting in Valdez in a windowless room at an emergency meeting at midnight. The consequences of that failed process 12 years earlier became very clear as I watched four Cordova citizens, whom I did not know, but they became my friends later, approximately 72 hours earlier the Exxon Valdez had grounded. At midnight, with the cleanup efforts stalled, these Cordovans had come to Valdez to join the Exxon executives and the hapless bureaucracy, which I was a member at the time, I should say, that's how I got to be in that particular room, to urge immediate action and to offer their support and their boats to control the dark stench of the oil drifting towards the shores of the marine homeland. That oil, as you know, was unleashed by a single hull tanker, improperly manned under the profit-driven practices of the same oil companies who now seek renewal of the TAPS grant and lease. Worse yet, after years of ignoring reports from the field that Alyeska and the TAPS owners were cutting corners on State and Federal requirements, the public officials were caught flat-footed when the responsible parties were not able to respond competently. It was an awful time. I don't have to tell many of you in the room. In the aftermath of that experience, many of us joined the Cordovans and

became good friends.

Now, another 12 years later in October 2001, again, a group of well-intentioned citizens gathered, this time in a windowless room in Fairbanks near the end of a series of scoping meetings supposedly called so that the preparers of the Federal DEIS and their State counterparts could listen to concerns about TAPS. Events in the weeks before that evening last October made painfully clear the applicability to TAPS of the lessons from Prince William Sound. Since you obviously didn't hear me then please bear with me for a moment tonight while I tell you again.

Three weeks before the meeting in question, on September 20, 2001, I stated to the conveners of the grant and lease renewal scoping meetings that, quote, many of the serious operational problems discussed in earlier AFER reports on TAPS are associated with pipeline restarts. On September 20th, when I made that statement we were in a brightly windowed room at the top of the hotel offering a panoramic view. Coincidentally on that day, if I could seen across the mountains I might have known that in Fairbanks the Alyeska senior vice president was proclaiming that TAPS would shut down for a scheduled maintenance two days later. That operation, he wrote in a guest editorial in

122-1

the Fairbanks Daily News Miner, was part of a, quote, well-structured and carefully thought out maintenance plan, unquote. He concluded that the shutdown and restart, quote, will go all but unnoticed by almost everyone and that's just the way we like it, unquote. Part of the statement was true, nobody noticed. But the Alyeska workers hustled to restart the line two days later, again, the bottom line, mistakes were made at three separate remote pump stations resulting in three separate oil spills. That marked the seventh year in a row of restart problems. The sixth year was on the cover of my report, which some of you have probably seen. I'm obviously not going to have time to go through this.

JPO claims there is no restart problem, specifically JPO in its comprehensive monitoring report in 2001 and this was their big report, it's hard for others that don't monitor the pipeline to know, but this was their main report of the year to stakeholders and it said, that Alyeska is found to be conducting planned pipeline and restarts in a safe manner. You can find in the same report direct evidence to the contrary because you can find the same photograph from the cover of my report showing the pipeline blown off its supports by, what I'll have to summarize as a botched restart. The details are in the report.

Both the Commissioner's Proposed Determination and the DEIS rely heavily on the JPO reports. I submit that they are fatally flawed. 122-2

Clearly I stand by the recommendations of the report I wrote. I commend to you it's in the library. I would say that I hope the people will respond to derail this train.

I believe that many of the points that have been made prior to my speaking tonight have been made far better than I could have and I am proud to follow the people who have spoken thus far.

Once, again, Cordova has done a remarkable job and I am both very moved and very proud to be here. Thank you, Cordova.

HEARING OFFICER GEARY: Thank you, Mr. Fineberg. Would you like to submit your written comments for the record?

MR. FINEBERG: I certainly would, thank you.

HEARING OFFICER GEARY: Thank you. I'm going to mark those as number 1.

(Hearing Exhibit 1 marked)

HEARING OFFICER GEARY: Becky Clausen. 00123

MS. CLAUSEN: Hi. I'm Becky Clausen. I'm speaking as a citizen of Cordova. I'm going to be

talking about the Draft Environmental Impact Statement.

There's three points I'd like to emphasize tonight for the TAPS renewal process. The first concerns public input. The pipeline crosses public lands, it effects all of our public resources of fish, wildlife and subsistence resources and it needs to be a transparent public process. We have, here in Cordova members of this community have only been notified of this meeting in our paper yesterday afternoon. It's great that folks were able to turn out tonight, but we deserve to have a lot more public notice of a meeting of this magnitude. Most of my friends and neighbors who are fishermen are out working right now and they represent a very large portion of this community that needs to be involved. 123-1

Cordova deserves a longer comment period and it should be extended. 123-2

The second point I'd like to address deals with a citizen's oversight group. We need preventative awareness of what's going on with this pipeline. We cannot rely on reactive measures to clean up spills on spawning and rearing habitat. Once one drop of oil enters that water, the damage is done. We need a preventative way to look at maintenance, oversee the issues of the pipeline that need repair and I feel that 123-3

this can be accomplished with an oversight group. It should be organized for all the inland waters that the pipeline crosses. 123-3 (Cont.)

The third point addresses the changes that of undergone in the past 25 years of the pipeline, and for this I'd just like to use a little analogy. I was born February 16th, 1977 and the newspaper headline that day read the first oil travels through Trans-Alaska Pipeline, so I have a little connection with it. But the main point of that is I'm living proof of the changes that have happened from that day to right now, changes in form and structure. And the pipeline is the material version of the changes in the infrastructure that have occurred. Changes in our understanding of the issues surrounding the pipeline like climate, permafrost changes, changes in its actual structure and form due to corrosion and shifts in the vertical structures. Changes in our understanding of how oil affects water, how it affects fish habitat, how it affects habitat of mammals, if it is spilled. These kind of changes over the past 25 years are substantial and they need to be addressed in an independent audit to see -- to incorporate the amount of knowledge we've gained and the amount that we've learned about the pipeline and it's operations and include them to find out, where are we now, what do we know about it 123-4

now, incorporating all of this science and engineering work that we've learned.

Not only do we need an independent audit right now, here today, we also need to make sure that there are continual audits every five years to -- independent audits made by independent parties, National Academy of Science can do it, and see how is it doing every five years before we can really understand its health and integrity. I'm planning on spending a lot of money on doctor's bills in the next 30 years of my life and I think it's only appropriate that there should be money in an escrow account to deal with the preventative repairs and restoration, potentially dismantling of areas that need it over the next 30 years life span of the pipeline.

123-4
(Cont.)

I would like to also say I support the six recommendations that AFER has made. I know that they've been said before tonight so I won't go through them but I'm in full support of those recommendations. They all deserve to be acknowledged in the impact statement.

And lastly, I'd just like to add that just this evening a colleague of mine had brought to my attention the amount of Libra cuts that have been experienced with survey and maintenance and inspection

crews on the pipeline, and I feel like those are very short-term, near-sighted decisions that are forecasting potentially disastrous results. No amount of budgeting or cost cutback decisions should be made when dealing with the oversight of the integrity of the pipeline.

Those are my comments. Thanks for letting us speak.

HEARING OFFICER GEARY: Thank you. R.J. Kopchak on the Environmental Impact Statement

MR. KOPCHAK: Hi. I'm R. J. Kopchak. And I'd be happy to use a little bit of my time. I came in, just like five minutes late, and I know a lot of my friends came in later than that and I'm not quite sure who I'm talking with tonight. And that would be great for me and it can be on my time to know who you folks are. Can I do that?

HEARING OFFICER GEARY: Sure.

MR. KOPCHAK: Thanks.

HEARING OFFICER GEARY: My name is Dennis Geary and I'm the hearing officer that's been appointed to conduct the six different hearings throughout the state. And I'll let the other folks.....

MR. BROSSIA: I'm Jerry Brossia with Bureau of Land Management.

MS. DOBOSH: Rhea DoBosh, Department of

Natural Resources.

MS. LAUGHLIN: Kaye Laughlin, Division of Governmental Coordination.

00124

MR. KOPCHAK: Well, thanks. I'm R.J. Kopchak and I'm a commercial fisherman here in Cordova and I've been here about 28 years and I've worn a bunch of hats in town.

The one I love best is fishing for salmon on the Copper River Delta. It contributes about $22 million a year to our economy. That's an average. Out of those dollars a whole bunch more is spent making my town work, that doesn't count processors and folks working around town or fuel or support or shipping or airlines or anything else. So the Copper River is pretty important to us and we don't have enough time to think about what's happening.

So the first thing I'd like us to all do is think about giving us about another 180 days. I think that would be great because this is a complicated thing to try to understand. 124-1

The other thing I'd like you to do for us is make the process more transparent. I think that the data on the maps and the systems that have been used to record the environmental sensitive areas, the crossings, the seasonal movements of all of the animals and then the 124-2

maps also used to provide the engineering and the spill response scenarios for the pipeline need to be digitized and not be static copies that are simply unavailable for anybody to review anywhere. I'm lucky enough to have a copy because I also sit on the Oil Spill Institute Board of Directors as a commercial fisherman. The Oil Spill Institute was created under OPA90 and is funded through a special fund that provides interest to do research relating to oil spill impacts in Arctic and subArctic environments and it does technology review and we do education programs. It has a multi-agency board of directors headed by NOAA.

124-2 (Cont.)

One of the things we try to do is use really good people to review the science that we're doing related to oil spills and their impacts. Get independent audits of our work to find out whether we're tracking correctly and to really evaluate whether or not what we spend a million and a half, two million bucks a year on is giving us the information that we need. One of the projects we're doing is modeling Prince William Sound to better predict the trajectory of oil spills and we're doing that in a three-dimensional system that will put the biological density of fish in, along with a weather pattern and tide pattern model so we can respond with the most appropriate technology to spills. We don't have

124-3

anything like that even started on the Delta. And, again, I got $22 million of mine every year, that's my community, riding on production of that fishery.

So I think we need to have a look at how we're going to manage spills and do the predictive kinds of science we need so that we can respond to what's going to be a spill. 124-3 (Cont.)

I'd like to congratulate Walt Parker for giving a great synopsis on the decaying portions of the pipeline. I lean to Walt often when I need good advice from somebody who's been around awhile. I think you guys need to listen to him and pay attention.

So I think we need oversight. That's the other thing I think we need. OPA90, portions of that, I think this room is full a bunch of the authors of portions of that legislature and they were fishermen and they were ex-agency folks, but mostly they were fishermen and those of us that responded during the early days of the spill. And we helped set the structure for both the Citizen's Advisory Committee and the way the Oil Spill Recovery Institute was set up so we wouldn't get caught so pants-down in the Sound again next time there was a spill. 124-4

I think you guys need to figure out how to set up the same kind of an effort on the Delta or for 124-5

the pipeline corridor. Again 20 percent of that is going through our spot. It is the most important wetland on the west coast of the America's. You know, virtually every little tiny shorebird in the world stops here every spring and you should come for our spring bird festival because it's pretty magic and if there's a spill it won't be good. Because there's no way that can be stopped. It could wipe out the entire world population of some of these shorebirds because they all stop here, every single one of them.

124-5 (Cont.)

So there's some significant levels of populations of good things at risk and we need to do a better job in taking a look at that infrastructure in planning response.

So I covered oversight.

So I guess I'm getting close. That's it, I guess. I want to thank all my friends for speaking tonight. I really encourage you to give us the extra time to comment because without, again, a bunch of that stuff in digital format, how can those of us that are somewhat informed and I would put myself there, still have the capacity to take a look at what's in that report. I can't do it. And, you know, I'm going to count on friends and they can't even get to the information because we don't even have that stuff around

town, not in real accessible formats.

So anyway, thanks for your time and I'll give the rest of mine to the next one.

HEARING OFFICER GEARY: Thank you for your comments.

00125

MR. KOPCHAK: Thanks.

HEARING OFFICER GEARY: Gabe Scott.

MR. SCOTT: My name is Gabriel Scott. I represent the Cascadia Wildlands Project and also just myself. I live here in Cordova.

First off, as far as the .810 hearings, as far as subsistence one thing jumped out at me in the EIS, which I can actually say I've read and that's that subsistence is very important in Cordova. It's just simply incorrect to say that the quote out of the EIS it is not very important in Cordova, that's flat untrue. In fact, as you read that page, you know, the description of Cordova, it's obvious whoever wrote that hasn't ever been here. I hardly recognized the community and I live here. 125-1

As far as the EIS and the State decision whether or not to grant another 30 years for the pipeline, my suggestion and the suggestion of the Cascadia Wildlands Project is to, at the soonest possibility, shut it down, pack it up and bring it back where it came from. 125-2

There are a few reasons why I think this is a good idea. First, the pipeline as it is, is dirty. Dozens and dozens of reasons, ways, methods and mechanisms that it is dirty, you know, there are hundreds and thousands of dead birds because of that pipe. The EIS expects a best case scenario tens of thousands of more birds will die just from the ongoing spills. There have been more than 4,000 spills if you count the North Slope and pipeline and everything that's happened in the Sound. There have been spills further south in Cascadia because of this pipe. I think it was in San Jose, a tanker went up on its own anchor and spilled a bunch down in California. These are the kinds of impacts that happen when you build a structure like this. It's just flat dirty. And as far as I'm concerned it's not worth the cost. 125-3

The second reason we ought to shut it down is that the benefits are decreasing, I think everyone acknowledges that, while the costs and the risks are increasing.

Less and less oil is going through the pipe. It's worth less and less. It seems like we're getting less and less benefit from it. We're learning more and more about how dirty it is. Petroleum is a dead end. I mean it takes a three year old to recognize when 125-4

you only have so much of a thing, if you keep using it you're going to run out. Real obviously that's the path we're on and it's sort of astounding that still mature adults can't come to admit that in a document like this EIS. 125-4 (Cont.)

Irretrievable commitments of resources, it occurred to me maybe oil was one of those things we're committing irretrievably. I mean it's not going to grow back. So I was surprised to see that that wasn't even acknowledged, that we're using up oil. 125-5

The third reason that it needs to go is that the oversight is a joke. And I think this is important. It's gone through and, I've only been here a few years, and the more I learn of the history it seems like there are just small circles that happen over and over from the first time an oil person came up and thought it was a good idea to start drilling up there and ship it down a pipe, there have been meetings like this where we're talking to, we're not exactly sure who, they appear to listen, a report's drawn up, paperwork is generated, nothing ever changes. I think you get the sense in this room there's a real profound distrust. I think distrust is really the operative word and that's a dangerous thing. There are good reasons why we don't trust JPO, don't trust Exxon, don't trust UNOCAL, BP, 125-6

Phillips, Amerada-Hess, Williams, any of the people calling the shots. It's because they've made promises and broken them over and over and over and over. There's no reason to expect it's different this time.

The last reason the pipeline needs to go has to do with who it is who operates it. And I want to single in here on a couple of companies, UNOCAL and Exxon. These are entities that really don't deserve to even have a place on the planet. I mean the crimes they've committed are so unspeakably heinous it's shocking that we're even thinking about giving them our oil and rights across our public land. Just a couple of the specific reasons, UNOCAL, I'm sure many of you are maybe somewhat familiar with the Adona Pipeline Project in Burma. These folks used child slaves for Christ's sake. I mean there were villages massacred for UNOCAL to make a profit. An UNOCAL as a small owner of the pipeline, it seems to me why do we have to grant them the right to operate the pipeline, we could grant it to the other five. But sorry, if you've used child slaves, you're off the list, that seems like a reasonable proposition to me.

125-6
(Cont.)

The second mark against UNOCAL of renewed relevance now a days, I suppose, is their strong advocacy on behalf of the Taliban. You remember those guys, they

were good friends with UNOCAL, that's been well documented in the press. And again, I'm just astounded that we're even thinking about giving them public resources. They don't deserve to exist let alone take stuff from us.

As far as Exxon goes, I think the one reason is obvious and that's the junk they spilled into the Sound out here. The way they lied about how it couldn't happen, the way they lied about how much it was, the way they lied about the cleanup, the way they dealt with the cleanup. The way they've dealt with compensation to, you know, following the lawsuits and the judgments against them. It's real transparent, shear cowardliness and denial on their part. I think there's no doubt that they've destroyed something. Even if we wanted to forgive them we couldn't because they're not sorry. To me, it makes no sense that we would even want to -- I wouldn't let these people in my home, you know, why are we looking at giving them our resources, you know, our children and grandchildren's resources?

125-6 (Cont.)

The second reason Exxon, we don't need to deal with them is things they've done down in Assa Province, Indonesia. These are issues, by the way, I raised at the scoping hearing and I was kind of disappointed to see that they weren't addressed somewhere

in those 1,700 pages. You know, I would have appreciated, at least, a reason why you were ignoring my comments. In any event, Exxon's guilty of some pretty heinous crimes down in Assa Province, Indonesia. They called it the Exxon Battalion. Committed some pretty heinous -- well, pretty heinous, they, you know, massacred villagers, there's some slavery involved there. This stuff is documented and I've directed you all previously places to find first-hand information.

To me, those kinds of crimes against humanity at the point where you're using children for slaves, at the point where, you know, you're supporting tyrannical regimes, you kind of need to stop and step back and think about who it is you're dealing with and whether or not you even go the next step and say, okay, well, what is your idea, is it something that's profitable to us both? There's certain people you just don't deal with. There's certain companies we just shouldn't deal with and UNOCAL and Exxon are two of those.

125-6 (Cont.)

So again, I would urge you to consider, in the alternatives, in the consideration of alternatives, approving or not approving the grant of Right of Way to some companies and not others. There's six separate applications to the State and Feds, we can

make six separate decisions. Tell Exxon and UNOCAL to pack up and take their stuff home, regardless of what we say to the rest of them.

The last thing I want to say is that I'm not -- I'm glad that R.J. asked that question of who it is we're talking to because I'm not really sure, you know, who you are. It's always a person at these hearings -- it's always a person sort of like you, who looks you in the eye and listens and takes notes but I'm a little unsure what happens after that. You know, you go -- you work at Argonne or something, maybe, or do you people have a meeting later and share this stuff? In any event, it seems to get lost somewhere in the shuffle and this seems to me a lot more like theater, it's just sort of done because the law requires you to do it. I don't believe that the Federal government or the State government is honestly interested in hearing the concerns of Cordovans.

Reasons I believe that, first is that the EIS is downright impossible to read. Like I said, I have actually read the whole thing and it was mind-numbing. And I also learned very little. 125-7

The second reason is that the comment period is so short. You know, this has been going on for years, you've known this is coming for 30 years, surely 125-8

we can have long enough to read the document before we're required to comment on it. 125-8 (Cont.)

There's also the fact that there is fishing openers today, you know, all the fishermen are out. I guess it's cowardliness that you're not willing to face up to the fishermen in Cordova and hear what they have to say. 125-9

And the last reason, as I said, the scoping comments that I and others have given previously don't appear to be addressed in the EIS and that, aside from sort just of personally being a little bit insulting indicates a lack of a good faith effort to honestly evaluate the impacts of this pipeline. I think if you look at what this pipeline means, it's real clear that the costs far outweigh the benefits, especially when you take into account the risk, really catastrophic things could happen, you know, God forbid a spill into the Yukon River, it'd wipe that sucker out. That's not the kind of risk I'm willing to take. So if it's all the same to you, I'd appreciate it if you'd just shut the pipeline down and take it back. 125-10 125-11

Thanks.

HEARING OFFICER GEARY: Thank you for your comments. All right, we're going to have one more person and then we'll take a break and we'll take about a

10 minute break and then we'll get back to the rest of the folks. So before the break, Rion Schmidt. 00126

MR. SCHMIDT: My name's Rion Schmidt. I'm a resident of Cordova. I'm commenting on the DEIS.

And I'd like to, I guess, be as short as possible and say that when you all extend the comment period another 90 days I'll be submitting some written comments but I wasn't able to put anything together before the meeting. And so I think I'd like to second the comments that Gabe Scott just made, I think you should shut the pipeline down and not renew it and for pretty obvious reasons. 126-1 126-2

I also think that it's an insult that you've said in your report that Cordova doesn't heavily rely upon subsistence. This year it seems that I'm going to be relying upon it more than ever. 126-3

So I'd just like to say, please listen to the comments that have been said here today and think about how you want to do business in the future.

I guess with that I'll just let everyone get to their break. And I'll be submitting written comments, additional written comments on behalf of myself.

HEARING OFFICER GEARY: Thank you.

MR. SCHMIDT: Thanks.

HEARING OFFICER GEARY: All right, we'll take a 10 minute break. I have 8:25, we'll reconvene at 8:35.

(Off record)

(On record)

HEARING OFFICER GEARY: All right, I want to call the hearing back to order. All right, during the break I was provided with copies of comments from Walter Parker and I'll mark those as number 2 and from Bruce Cain and I'll mark those as number 3.

(Hearing Exhibits 2 and 3 marked)

HEARING OFFICER GEARY: And if anyone else who's already spoken would like any of their written comments or notes to be entered, don't hesitate to bring them on up to me. The next person to speak is Patience Anderson-Faulkner.

00127

MS. ANDERSON-FAULKNER: Good evening, thank you. I'm an ordinary citizen here in Cordova. I can do lots of different things and I know lots of folks but I'm here as myself.

I would like to comment on we need a five year review. 30 years is a long time without the TAPS process being looked at again and a five year review, I think, would be very nice. 127-1

We need to also resolve the issues of the 127-2

Exxon Valdez. Many people have testified and spoken on how that impact is and it's very serious, it continues to be very serious. Fourteen fishing seasons later we're still suffering and we will continue to suffer. Whatever happens in EVOS settlement will never make us whole and we can't let that happen again. 127-2 (Cont.)

We need citizen participation on the entire TAPS line very much similar to the RCAC process. It's very important that everyone has an opportunity to speak and discuss issues so that we can be good friends and good neighbors. The oil pollution impact, air emissions in the Valdez Basin and along the TAPS pipeline are high. Those air emissions and pollutants go up, they have to come down, it goes into the water, it goes into the land, it impacts my subsistence foods, impacts my health and it impacts my life. We need to have an opportunity to put all those things in check. 127-3

The oil companies are always wanting to be good neighbors and they want to be good citizens. So let us be good neighbors, ones who talk and advise each other on the best of everything for both of us.

It is imperative that we have the opportunity to enforce the development of our resources. Examples of more than 25 years delay in enforcing Section 29 are black and white examples of one party, the oil

industry, ignoring written agreements. We must have teeth to the access of the development. 127-3 (Cont.)

Thank you.

HEARING OFFICER GEARY: Thank you for your comments. Georgia Rodgers on the Environmental Impact Statement. 00128

MS. RODGERS: Hello. My name is Georgia. I live in Anchorage. Today, me and some friends of mine collected over 80 signatures in less than two hours just in Cordova. The petition states:

We the undersign insist upon the following conditions for the renewal of TAPS operational leases:

1. The grant lease should establish a citizen's oversight group funded by the TAPS owners through the Department of the Interior. 128-1

2. TAPS dismantling, removal and restoration funds should be immediately placed in an escrow account. 128-2

3. Grant and lease renewals should be made conditional on satisfactory completion of an immediate and comprehensive independent field audit, as well as an independent technical review and a field audit every five years. 128-3

4. TAPS should be transferred to a 128-4

single responsible managing party with no North Slope production. 128-4 (Cont.)

5. A TAPS employee concerns program should be incorporated, as to-date there is none, into lease and Right of Way renewal ensure critical problems are adequately addressed to prevent spills. 128-5

6. Stipulations attached to the original Federal and State grant least agreements should be carefully reviewed to ensure that the reflect A) scientific and technological advances during the last three decades and; B) experience with the operation of TAPS. 128-6

7. The public comment period must be extended at least 45 days more to ensure ample time for meaningful input. 128-7

This is just 80 signatures as I said, today, just in two hours. And had we had any more time, like if we had -- if we knew about this before then we could have gotten, I'm sure, five times as many.

HEARING OFFICER GEARY: Thank you.

MS. RODGERS: And I'd also like to say, in 1999 six employees of the Alyeska Pipeline Service Company wrote to Federal officials arguing that neglect and maintenance cuts on the pipeline would lead to disaster. They stated that, quote, it would not be a 128-8

single gasket or valve or wire or procedure or person that would cause the catastrophe, it will be a combination of small, perhaps seemingly inconsequential events and conditions that will lead to an accident that we're all dreading and powerless to prevent.

The bullet hole that caused 6,800 barrels to spill last October and cost $7 million to clean up, took 36 hours just to stop the oil from coming out of the pipeline and that's ridiculous. And Alyeska Pipeline Service themselves have stated that there's no way they can monitor every foot of the pipeline and if this -- if the life span of the pipeline is going to be doubled, then some serious monitoring needs to be done and steps need to be taken to ensure that there isn't a major spill because we had three of them last year on the pipeline.

128-8 (Cont.)

Thank you.

HEARING OFFICER GEARY: Thank you. I'm going to mark the petition as number 4.

(Hearing Exhibit 4 marked)

HEARING OFFICER GEARY: Dune Lankard on the Environmental Impact Statement.

00129

MR. DUNE LANKARD: Thank you. Good evening. My name is Dune. I'm a past commercial fisherman here in Cordova and a current subsistence fisherman and I represent tonight, the Eyak Preservation

Council, which is an environmental watchdog group here in Prince William Sound and the Copper River Delta.

The first thing I'd like to do is read from the Draft Environmental Impact Statement for TAPS, while the Exxon Valdez Oil Spill was a significant event in the operation of TAPS, creating significant benefits to the state and local economy that more than offset the economic damage to the fishing and tourism industries in Prince William Sound. It is unlikely that a spill of such magnitude, even if it occurred again, would create the same level of economic activity.

My question to you is, what does this statement suggest? That oil spills, they're beneficial to the communities that it happens in? We were doing just fine being a glorified fish camp here in Prince William Sound, much before the Exxon Valdez Oil Spill and it really saddens me that statements like this are in this Draft Environmental Impact Statement. This is our way of life that you're talking about. Our livelihood depends on the health and the bounty of the ocean and its resources. And since the oil spill, a lot of things have changed that you'll never be able to replace or ever compensate us for. And so I think that, you know, out of respect to the people and to the area, that you extend your public comment period at least 90 days and like R.J.

129-1

129-2

said, even extend it 180 days to make sure that you get all of the input from all of the people on what you really need to do to make this a safer transport system for oil. And like Gabe said, even, you know stopping the transport of oil would be even better. 129-2 (Cont.)

I really don't believe that the oil industry takes oil spill responsibility seriously. And a good example is on the 10-year anniversary of the Exxon Valdez Oil Spill, the New Caressa grounded in Oregon and half the ship broke off and so they burned the oil in that part of the ship and took the other half out 20 or 30 miles offshore and put it full of bullet holes and then they couldn't sink it so they stuck a million dollar missile in it and that was an oil contingency cleanup plan. This is what we've learned after 10 years? 129-3

I mean this is a disgrace and you should be very embarrassed that this continues to happen.

There has been a number of comments made that the oil pipeline crosses a number of salmon streams, 76 salmon streams that lead into the Copper River. I'm also a Copper River guide and I bring a number of people down and I show them where the pipeline crosses into the river where we can visually see it but there's a number of places where we cannot. And right now, if there was an oil spill of any magnitude on the Copper River, there 129-4

is no way you could even begin to clean it up. Just none at all. And I think that without an oil spill contingency clean up plan in place for the Copper River Delta and every place, like Bob Henrich was saying, that this Right of Way responsibility should include, you know, 200 miles offshore. I think it should go clear to the point where you are bringing these oil tankers to the refineries, because your responsibility doesn't end when that oil leaves the shore and certainly your responsibility doesn't begin, either, when the oil spill hits the water, because it's proven that from the oil spill there's very little that you can do to clean it up. So the best method is prevention to stop it from happening in the first place.

129-4 (Cont.)

Another example that Georgia brought up about the bullet hole. That was crazy that 32 hours or 36 hours went by that a small oil leak caused by a bullet hole could cause so much damage and cost so much money. And so that only, you know, gives you an indication of how vulnerable this oil pipeline is.

129-5

I think that under the TAPS renewal process that you should also respect and acknowledge and work with the tribal governments that live and have inherent rights along the 800 mile pipeline. You should be sitting down and having government to government

129-6

relations and talks with these people to figure out how you're going to minimize future oil spills and also create oil spill contingency cleanup plans that actually can work because you have, obviously, several billion dollars set aside in dismantling, removal and restoration and I think a lot of those monies could be used right now to implement a responsible plan to address any future oil spills and they will happen. 129-6 (Cont.)

Also, I think that this EIS should include some of the latest science. And, you know, a good example is, a good friend of ours who is not here this evening, Dr. Ricky Ott, was able to talk with some people about this one part per million that affects the reproduction of wild salmon, one part per million of hydrocarbon pollutants, well, 400 peer review scientists got together and they all acknowledged and stated that it was one part per billion of hydrocarbon pollutants that affects the reproduction of wild salmon. That means that this oil spill, right now, is 1,000 times worse than we ever imagined and believed and our laws still reflect that. And so OPA90 still, you know, that didn't address it. And so we've learned a lot from the Exxon Valdez Oil Spill Trustee Science over the last decade and a lot of this science is either being omitted or ignored. And I think that's really, again, I think that's sad that 129-7

that's not being integrated into your studies.

I believe that you know what's right. I believe that you -- let me take that back. I want to believe that you want to do what's right. And I'm hoping that in this process that you're going to take this testimony from these people and realize that this is about our lives, this is about our future and it's also about our past, because we're still living in the past; we're still dealing with the nation's worst oil spill. And this EIS doesn't reflect what has happened to our people or our way of life. And you haven't proven to us that you have done anything different and that you're going to do anything different that's going to make us trust you.

And like Gabe was saying earlier and a couple of the other folks, that we need to wean off our dependency of oil. We need to look at alternative energy as, you know, the proof of how we can live in this new world rather than continuing to pollute our waters and our lands and our air. And we have the technology and I really believe that you have the collective wealth and the collective intelligence to put forth a comprehensive energy policy that this nation and this world would be proud of and I think that it starts right now by taking responsibility in paying up the debt, the $5 billion to

129-7 (Cont.)

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these people and compensating us for our lost way of life.

129-9 (Cont.)

And I'm hoping that you will, you know, take this information and extend this period and make it more comprehensive, you know, work with the people. Because, again, like I said, this is our way of life and my people, the Eyak, have lived along the coast for the last 3,500 years and it was brought to my attention that, you know, when the statement says, because so few Eyak remain, a discussion of Eyak culture in the 21st Century is impossible, to whom? How can you possibly say that? Yes, there may only be 140 people of our Eyak people alive today but we have just as much right as you do. We have just as much of a right as anybody else to exist on this planet. And I think that, like I said and I'll say it again, we have the technology and we have the intelligence to safely transport oil, but until you show us different and you prove to us that you really care about what we're saying and what we're feeling and what we're going through and making sure that you're compensating us for our losses, then we will be able to then sit down around the same table and try and discuss how we're going to address this issue in the future because that oil pipeline, it's on the verge of collapse and it's going to happen. And, you know, just like the

129-10

Arctic National Wildlife Refuge, we do not want to put anymore oil through that pipeline than has already gone through there.

129-10 (Cont.)

And I know that in this renewal process that you're trying to show us that you're taking responsibility and you're going to listen to as many people as you can before you make your decisions. But I know that this is a draft and so, you know, please listen and hear what we're saying and incorporate those into your discussions and work with us because we do want to believe in you.

And, you know, before the oil spill ever happened, I took a lot of things for granted and I realize that I had to quit fishing in order to help protect this environment. And, you know, please do your job and we'll do ours.

HEARING OFFICER GEARY: Thank you, Dune.

MR. LANKARD: Thank you. 00130

HEARING OFFICER GEARY: Nancy Bird.

MS. BIRD: Yes, Nancy Bird. I am vice-mayor of Cordova but I want to make clear that most of my statements -- I have some preliminary statements, I think, I can make on behalf of the City Council.

And those are that from listening to the comments tonight, I came here, I have not read either the

Draft Environmental Impact Statement or the State document you're referring to. I don't think anybody on City Council has. I know our City Manager was disappointed that he didn't receive notice of this meeting until just a couple of days ago and so I would, I think, I'm safe, even though my City Councilmembers have not talked about this amongst ourselves directly to state that we would really endorse a much longer comment period, at least 45 days, preferably 90 days, I think.

I guess I would go on to state, sort of on my own behalf and in support of that, that the Chugach National Forest recently went through a major revision of their planning document which I think might be compared to something like what you're doing for the pipeline renewal. They took over two and a half years, I believe, to finish from start to end, they extended the comment period numerous times because of the interest, particularly by Cordova. So I think a 45 day comment period is very, very short for an issue of this magnitude. 130-1

So with that stated, the rest of my comments are for sure only my own and I'll try to be relatively brief because I don't feel like I am as well informed on some of the specifics. I have been here since the beginning of the pipeline, I actually arrived

just a month before the pipeline began operating so I have lived through the Exxon Valdez Oil Spill, I think that I can't emphasize enough how important the Copper River fishery is to this community. Some of the comments you heard earlier gave you economic figures of the importance of that fishery. It's always concerned me, even before the oil spill the number of river crossings that the pipeline has and after the oil spill, we've done a lot of work on improving the oversight system, the lack of -- you know, to not be complacent anymore for transport of oil from the terminal and the terminal operations through Prince William Sound. There's always room for improvement. But I don't have any of the assurance that the same kinds of things have been done for the pipeline itself and particularly for the river crossings and the incident that occurred earlier this year of the pipeline being shot by a drunk was one that obviously was of concern to this community as many people have said, if it had happened any place near one of the rivers, it would not have been stopped and we don't know what kind of damage there would have been. It would have all depended on when it happened, what resources it would have been critically impacting and such. But, you know, there's a lot that should be done to improve the oversight systems.

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I would support the creation of another citizen's oversight group. I would support the audit that's been -- independent audit that's been mentioned several times. It seems very reasonable to me to do those kinds of things, to require the spending of that kind of money in advance of -- as part of your prevention. The valves, the corrosion issues are of great concern to me. From the reading I've done it appears that there's not enough information on that. There's not enough oversight.

I would say that there's been a lot of change in the 13 years since the Exxon Valdez on the oil industry's response to concerns of the fishing community in Cordova, particularly. On the other hand, I know they're always looking at the bottom line, Alyeska continues to, as was stated earlier, have good intentions, good plans, but their budgets don't always stay at the levels that they think they're going to be at the beginning of the year and every time budget cuts happen, it's based on what the minimum that they have to do is and I think we have to raise that minimum to ensure that we get the oversight we deserve.

130-3 (Cont.)

Just two more things I wanted to comment on, the statement that Dune read earlier that he quoted from the Draft EIS disturbs me because it's not the kind

130-4

of subjective statement I would expect to see in an EIS. I would take great issue with it and, I mean, I'm sure an economist may have made it and maybe there's some good back up for it but I'd sure like to see it, I haven't seen that kind of information that would support that statement. 130-4 (Cont.)

Based on that, I guess, it concerns me that there may well be many other errors of like magnitude. Other people have spoken of statements made regarding the subsistence use of resources by Cordovans and I would attest to, I mean there are subsistence studies that the Division of Department of Fish and Game have done in the past that indicate Cordova is one of the higher communities of subsistence users in the state. So I don't know where some of the information is coming from that people are quoting. 130-5

I guess the final statement I would make is just regarding sort of the issue of trust that several people have spoken to and, yes, this community continues to not have a great deal of trust in what is promised us by industry as well as State and government agency people. You know, I think that we're not generally of the belief that the Exxon Valdez happened because of one person's error, there were errors all down the line and they began with the captain and they went on to DEC, the 130-6

Federal oversight, there were lots of lots of people to blame, the oil industry, the lack of money and so I guess I, as a public official, I like to see people questioning what is going on and constantly asking us. And so I guess I would echo that and say that we deserve to get some answers and be more assured and not have people think that we can ever be complacent again.

130-6 (Cont.)

Thank you very much for your time and look forward to an extension of the comment period.

HEARING OFFICER GEARY: Thank you. Udi Lazimy.

00131

MR. LAZIMY: My name is Udi Lazimy. And I'm speaking on behalf of myself.

First of all I'd like to extend my gratitude to everybody involved in this decisionmaking process for accepting comment on this process. It's only prudent that the communities of Prince William Sound and the rest of Alaska and the national public have ample time and space to submit comment, invoice their opinions at public testimony as regarding an issue of this importance.

After spending time studying the status reports of the Trans-Alaska Pipeline system, I've come to the conclusion that allowing the lease renewal to go through unabated and without extreme policy changes and

reorientations of management processes of the pipeline would be unwarranted and not in the best interest of the Alaskan people or the global community, seeings how so many people, especially in North America, at least, depend on this oil and we need to see a decrease in that dependence.

TAPS is constructed with an objective optimal operational lifetime of 30 years and the physical mechanisms that support the transport of oil across the state are now beginning to show their age. If the pipeline is to be maintained at its current structural condition, oversight and management changes must be made to ensure proper environmental and economic security. 131-1

The following are my recommendations for the TAPS renewal decision process.

1. That the TAPS leases not be renewed at this time as the structural integrity of the pipeline is poor at this point in time and the dangers involved in allowing the current structure to remain operational are far to great. TAPS was intended to be used for only a 30 year period at its original structural design. And the structural and mechanical foundations were designed for optimum performance for no longer than this time. This period of time is over. The pipeline has exceeded 25 years of operation and there are numerous examples of 131-2

poor structural integrity along the length of the pipeline. The community of Cordova specifically is threatened by the renewal of the TAPS lease. Because of the poor structural integrity of segments of this pipeline that not only pass through the Copper River watershed upon which Cordova depends for subsistence and commercial resources, but also throughout the entire state. As has been stated before by a number of the people in this room, the pipeline does pass over 76 anadromous salmon streams and 20 percent of it does cross the Copper River watershed.

131-2 (Cont.)

131-3

I had the honor and the chance to raft the river recently, last week and the resources and the beauty and the wildness that I found there was unbelievable and I haven't seen that anywhere in the country and I lead backpacking trips around the country and to have any kind of threat to that pristine wild place that we have here in our backyard, it's just totally unfounded. Cordova is predominately a community dependent on commercial and subsistence fishing dependent on that ecosystem that we have in our backyard. Over 85 percent of its residents subsistence fish. A breach in the pipeline within the boundaries of the Copper River watershed would degrade the habitat of wildlife upon which the community depends for commercial and

131-4

subsistence needs.

Upon reading the EIS, the sociocultural system section lacks recognition of Federally-recognized tribes and relies inappropriately on the Handbook of North American Indians rather than the tribes themselves for information about their history and culture. The people that have for so long relied on this place for subsistence needs. Completely and wholly inaccurate information about the Native Village of Eyak and tribal members are included in this document. To state that because so few Eyak people remain, a discussion of Eyak culture in the 21st Century is impossible raises serious questions about environmental justice and its renewal. We just heard from just one of these wonderful people that has called this place their home for thousands of years. Complete lack of understanding of subsistence is seen in this document. It incorrectly analyzed the subsistence needs of these people in conjunction with economics, not just, of course, the Native people of whom there are so few remaining but the entire community of Cordova.

I'd like to require that TAPS companies fund research into effects of pipeline on subsistence in the past, present and future.

I'd also like to say and reiterate the

131-4 (Cont.)

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points that have been made from the folks that have been using a lot of the research done by AFER. As has been shown a lot of the comments that have been made in the past have been completely looked over and passed up. And so I feel like I need to reiterate those points just to add strength to that argument.

That first, the grant and lease should establish a citizen's oversight group funded by the TAPS owners through the Department of Interior to ensure through community involvement that the pipeline is maintained if it is to continue and operated in a manner that safeguards the natural resources of Alaska and ensures the safety of continued oil shipment. 131-7

Also that the funds that TAPS owners have collected for the future dismantling, renewal and restoration of TAPS be immediately placed in an escrow account. And contribute a small portion of the excess income that they will earn from past dismantling, removal and restoration collections to establish a fund that would generate millions of dollars per year to finance the TAPS. 131-8

Also if the lease is to be renewed, it should be made conditional on satisfactory completion of an immediate comprehensive field audit as well as independent and technical review and field audits every 131-9

five years.

There should also be an employee concerns program. And stipulations attached to the original Federal and State grant and lease agreements that it should be carefully reviewed to ensure that they reflect the scientific and technological advances during the last three decades and past experience with the operation of TAPS.

I'd also like to point out that in the latest revision of the Chugach National Forest plan, the Forest Service has opted to join in the planning priorities that have been shown on the Tongass National Forest recently as well which is not acting on the public voice to protect the lands of the Copper River Delta and Prince William Sound for the purpose of managing them as not only wilderness but so that subsistence and commercial priorities be focused on, mainly. That the Copper River Delta remains as a 501(B) designation which does not allow strong enough protection for its resources is simply wrong. It should not be thought of as a place for people to be allowed to drive all sorts of off-road vehicles all over it and jet boats up and down it. That's not right. They don't need to in order to subsist.

Finally, I'd like to say that the public

131-9 (Cont.)

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comment absolutely must be extended at least 90 to 180 days to ensure ample time and meaningful input. I was one of the people collecting signatures today and not enough people knew about this meeting. We spoke to over a hundred people that had no idea what we were talking about and I think that that would be -- your scoping of public opinion would be greatly helped and would benefit by allowing people to know about your meeting a lot earlier.

131-11 (Cont.)

So I urge you strongly to consider all of my above recommendations because I believe that they are in the greatest interest of the communities of Alaska, Prince William Sound and the Copper River watershed.

Thanks.

HEARING OFFICER GEARY: Thank you. We will mark that as number 5.

(Hearing Exhibit 5 marked)

HEARING OFFICER GEARY: Next is Sierra Drake.

00132

MS. DRAKE: My name is Sierra Drake and I live in Cordova and I'm speaking for myself. Can I say anything I want.

HEARING OFFICER GEARY: Whatever you want to present to be considered in the decision.

MS. DRAKE: Okay. First of all, I want

to say that to call this meeting a public meeting is total bullshit. A large fraction of the public can't even be here. Everybody here knows this is a fishing town but apparently the people who scheduled the meeting don't. It's like scheduling a public meeting in the middle of a city at 2:30 in the afternoon. You can't schedule a meeting when everybody's at work, that's just bullshit. And I don't think this process should go on until there's actually been a real public meeting where everybody has a chance to come to it. 132-1

I think that the public comment period should be extended, 180 days would be great. I barely cracked the document and what I saw in there was again, just total bullshit, lies about Cordova, lies about what we do here, lies about who lives here, lies about what the fish mean to us, lies about what the river means to us. And I just think that's sick. It just shows that oil companies don't care. Nobody except us seems to really care what happens. And I think if you guys are getting commentary from the oil industry you should just throw that stuff away because those guys just want money and they don't need money. We don't need to help them make money. It's not a good reason to take the risks that the pipeline takes and it shouldn't. It shouldn't keep operating just for that reason alone. I can't think 132-2 132-3

of any good reason it should really keep operating. Those guys don't need to get rich, period, any richer than they already are.

132-3 (Cont.)

In this country when corporations first started operating they're granted charters, they still are and back then corporate charters were revoked when corporations betrayed the public. They were considered to be public servants and the public would take their right to operate away if they started harming the public or harming the public interests. And I think that we should still act that way and we should still think that way and those laws are still on the books and we should still take advantage of that.

I agree with what everybody else has said so far. Everybody I know in Cordova is trying to put away fish right now for winter. Everybody's getting ready to pick berries, very excited about it. Everybody's talking about hunting, getting together their groups of people who are going to go out. And everybody here has said how much subsistence means to all of us and I just want to echo that, too.

132-4

Basically, I think that all these oil companies that are making money off the pipeline, whenever they make a mistake their insured and they don't have to pay. They didn't lose money from the Exxon

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Valdez spill, Exxon didn't lose money from that, they made money from that. And as long as the costs of their mistakes are going to fall on anybody but themselves, they shouldn't be allowed to do anything at all. 132-5 (Cont.)

And that's all I have to say.

HEARING OFFICER GEARY: Thank you for your comments. Ross Mullins. 00133

MR. MULLINS: Yeah, my name is Ross Mullins. I'm a longtime resident of Cordova. And I'd like to take this opportunity to just comment on a couple of the issues that have already been addressed by most people but my approach is slightly different.

My concern is with the industry attitudes and whether or not we can trust the kind of material that they present as facts to the government monitoring entities. We've seen enough of the malfeasance of corporate, as George W says, evil-doers in the last few months, they'll probably get some insight into the nature of the corporate mind. 133-1

I look back at the way this whole thing began in 1969 in Cordova as a series of broken promises. We first were confronted with the initial NEPA Draft EIS process hearings that took place in Anchorage in 1969, I believe September and this was the first test of the NEPA Federal policy and there were hundreds of people there

testifying about their concerns for the transport of oil through Prince William Sound and the pipeline, et cetera. And we were given all kinds of assurances, most of which fell on pretty much deaf ears. The fishermen felt that the only way they could get attention on their concerns about the risks of oil transport was to go to court which we ended up doing in late 1969 or early 1970 where we sued the Department of Interior and the Department of Agriculture and we succeeded in holding up the permit issuance or the application had been denied by the fact that the Department of Agriculture was illegally trying to issue a land lease for more acreage than they were authorized by law to do. Well, as we all know, the outcome of that was for the Congress to take it out of the hands of the court and through the illustrious Spiro Agnew who broke the tie in the Senate, they issued the permit and the TAPS project began.

At that time we were most concerned about the marine transport in because that's where we make our living out here in the waters of both Prince William Sound and the Copper River. And the Prince William Sound elements seemed to be the most threatened because of the super tankers and their ingress and egress through the Sound to pick up these huge quantities of oil and we held many meetings, went to Washington testified at various

congressional hearings. I remember sitting in Ted Stevens' office with several other fishermen where Senator Stevens said I can assure you not one drop of oil is going to touch the waters of Prince William Sound, he says, Dr. Warner VonBraund himself told me that the technology we have today will preclude that from ever happening.

Well, you know, these are the kinds of broken promises that make you a little bit skeptical when you see what happened in 1989. We held here in 1977, as referred to as Richard Fineberg, an oil symposium that the fishermen put together where we brought tanker captains, oil spill experts, scientists of all stripes here to try to elevate the consciousness of people on the threats that might be out there in order to keep their feet to the fire, we were assured we'd get transponders, we were assured, you know, there'd be the latest technologies applied and what did we get, we got none of those and we ended up with this oil spill in '89.

Now, I fear that we're looking at the same type of scenario here on this renewal of the TAPS pipeline. As has been said, it's nearing the end of its original design life, 30 years, they're asking for another 30 years, which, under the circumstances you can understand because the oil's still up there and they got

133-2

ANWR and I'm sure Murkowski's going to keep beating the drum on ANWR until he finally gets it so there's a million gallons a day coming down out of ANWR for another 30 years. This thing is going to be critical to the health of this area. We were decimated by the '89 spill. We still haven't recovered from that. 133-2 (Cont.)

And when I say this is about attitude, industry attitude, and in a sense government cooperation with these industry attitudes, I think to myself of the comment Exxon submitted to the court, Judge Holland's court about 10 days ago in one of their briefs where they recharacterize history to indicate that, hey, in reality, this oil spill was a blessing for Alaska and a blessing for the fishermen. They made more money than they would have ever made, the state had a greater economic infusion for that period than they would have normally ever had. This was a blessing. Well, that just goes to show you the attitude the industry has. I don't trust these people. When you can come out and make those kind of egregious statements in the face of the reality, then you've got to be skeptical as a public of what other kinds of bald-faced lies they may be telling.

And in this regard, I think we have to have strong monitoring and my own preference, as has been stated by many, an independent audit by a third-party, 133-3

independent of the industry of this pipeline before we issue the permit. Now, I know Congress has just passed a new Pipeline Safety Act. I haven't seen the text of it but I would doubt if a great deal has changed but I would hope that because of the apparent concern that's abroad in Washington, that an independent audit would be considered a reasonable request. Something that any prudent person would look to rather than take assertions of the industry which are then picked up by the other drafters of documents and incorporate them. This is where a lot of the incorrect stuff comes from. I just don't trust these people and for anybody to just say, oh, yeah, we'll give them the benefit of the doubt, I think is a huge mistake because we've given them the benefit of the doubt in the past and we know where we are today as a result of it. We're still in court with Exxon 13 years later. When they came here within a week of the oil spill and said, we will make you whole, don't worry. If your nets don't fill up with fish, Exxon will take care of it. That was a bald-face lie.

133-3 (Cont.)

I agree with the other comments that have been made about the extension of time. I just saw this for the first time in the paper yesterday and I got an e-mail this morning also on it. I think it's unconscionable with the thickness of these documents that

133-4

we be given such a short shrift of time to comment. We definitely need a minimum of 45 to 90 days and preferably longer. Since the pipeline permit expiration is not until 2004, I think there's adequate time to extend this comment period so that people can become adequately informed on the issues, many of which are quite technical that we need to inform ourselves on before we can make a reasonable presentation. 133-4 (Cont.)

I'm going through this historical drill because I don't have the technical information here, but I would far prefer to be able to comment on flaws in the pipeline that you should be addressing. But, you know, I do know that there have been may maintenance people at Alyeska who have raised alarms about standards, quality issues. Their shut-down procedures that have been mentioned shifted the pipeline 21 inches on a restart. 133-5 In several instances the pipeline is sitting on the edge of its vertical support beams. What's that mean in terms of an earthquake? Those are supposed to give motion stability under the pipeline. Well, do you think the earthquake's going to know that it's on this edge so the earth's going to shift that way so the pipe will have room to roll, no, it might just go the other way and then it falls over or breaks.

You know, these things are known, we just 133-6

have to have independent auditing to verify it and document and as the industry gets squeezed more and more by slower throughput of oil and profits commensurate with that and begin to cut it more and more, their budgets, you're going to find this maintenance program to become marginal at best. And I think an independent audit would help to identify a lot of the problems that are out there and help us address them in a real type of EIS statement. 133-6 (Cont.)

Quickly, a citizen's oversight group, I fully support that. I think RCAC has done a wonderful job here at Prince William Sound and we could use something similar on the pipeline over land portion to monitor it and it's an independent entity more or less that's able to alert the public to problems and the public can bring pressure to bear on the politicians to get these things corrected. 133-7

And I think a whistleblower protection clause in the approval process is also necessary so that maintenance workers, if they do identify problems can report them without fear of losing their jobs. 133-8

Thank you very much.

HEARING OFFICER GEARY: Thank you, Ross. Kristin Smith.

00134

MS. SMITH: Thanks. I represent a community based nonprofit called the Copper River

Watershed Project and I sit on the Cordova City Council.

And one of the things I really want to say tonight is that I think it's unconscionable that this process has been set up in the way that it does to discourage public participation, a Friday night is a pretty deliberate choice of timing to make it more difficult for people to come. And I know that when you're going to Glennallen you're meeting in the Glennallen High School auditorium. We have a high school. But we're here in a building that is not handicapped accessible and I think that's probably close to illegal. And I think the BLM and the DNR that organize a lot of public meetings probably know that. 134-1

And I also wanted to comment on the Environmental Impact Statement. The document itself is pretty lacking in analysis. There's a section that talks about soils and permafrost in the environmental consequences section. The text reads similarly, saturated soils are on slopes are weak mechanically. The permafrost under those saturated soils could provide a potential plain for a landslide to occur. And it also says, if the warming trend in Alaska continues for the next 30 years of the proposed renewal period, the risk of encountering liquefaction and land slides would be expected to increase. Senator Ted Stevens has also 134-2

stated, quote, that Alaska is harder hit by global climate change than anyplace in the world. But that's it, in a section of this environmental impact statement called environmental consequences, there's no analysis that I could see. There's no comment on what that means for the depth of permafrost, the effect that could have on vertical support members and other pipeline infrastructure. So I want to state for the record that the Environmental Impact Statement is severely lacking. 134-2 (Cont.)

There's another section called regional economic impacts. There's no discussion about the consequences of a spill event, not even having been through with the Exxon Valdez Oil Spill having provided ample first-hand experience with the consequences of a spill, there's no discussion in this document about the economic impact on these communities. There are two dozen communities alone in the Copper River watershed with half of them being located near the Gulkana, the Klutina, the Tazlina and the mainstem of the Copper Rivers. Those tributaries to the Copper all have pipeline crossings and a natural event such as an earthquake or a landslide or something else, like a maintenance accident causing a spill into any one of them would be devastating for fish habitat. And you know that salmon sustained the commercial, sport and subsistence 134-3

economies of this region but there's no mention of that in that Environmental Impact Statement. 134-3 (Cont.)

I'm testifying and you've heard this comment already but it bears repeating, that one-fifth of the Trans-Alaska Pipeline system travels through the Copper River watershed which is an intact ecosystem that supports commercial, sport and subsistence fisheries. The pipeline crosses 76 fish streams and so that's all critical spawning habitat. I think there's been a lot of focus on what's happened in Prince William Sound and the fact that there's a Copper River fishery at the mouth of the river, but the critical spawning habitat is all these tributaries that are crossed by the pipeline. 134-4

And so I think I want to just emphasize the five recommendations -- or there were six actually that were made by the Alaska Forum for Environmental Responsibility. I concur with all those recommendations.

Create a citizen's oversight group. 134-5

Create an escrow account for the funds set aside for the dismantling, removal and restoration of the pipeline. It's not enough to say that the money will be there. We've seen plenty of examples lately of how accounting on paper does not ensure safekeeping of needed resources. 134-6

Conduct a technical review and an audit every five years of the pipeline operations use of best available technology. 134-7

Make the terms of the grant and lease renewal identify a single responsible managing party and a stable source of funding for the Trans-Alaska Pipeline. 134-8

Establish a viable employee concerns program as part of the grant and lease renewal. And take advantage of the past 25 years of experience, incorporate what they've learned in how to manage the pipeline because there's a lot of good information out there. 134-9

And I do want to thank you for coming to Cordova to hear us. I think because the pipeline is critical to our everyday lives and to those of people up and down the West Coast that you should be having hearings in all of the communities affected by the Trans-Alaska Pipeline including Washington, Oregon and California at a minimum. Lots of other communities have experience with pipelines in their backyard and they probably have insights to share and I think it would all be beneficial. 134-10

And I, too, look forward to seeing an extension of the comment period. The way the document has been distributed, the way this process has been advertised, it all warrants an additional 90 days at a 134-11

minimum.

Thank you.

HEARING OFFICER GEARY: Thank you, 00135 Kristin. Phil Huffman.

MR. HUFFMAN: Hi. My name's Phil Huffman. I'm actually a resident of Waitsfield, Vermont. And I have a few comments as a U.S. Citizen and resident. Mostly sort of general comments on the process as opposed to any specifics on the documents that are in question tonight.

My wife and I are the newcomers to the region, we've actually been in Cordova for about 12 hours and in Alaska for about 48. It's the first time either of us have ever been here. And we certainly didn't come to Cordova specifically to attend this hearing but I'm actually very glad that our visit happened to coincide with it. Given the sort of short notice on this, even more so for us. Forgive me if my comments are a little bit scattered, I've been sort of scribbling notes wildly over the last hour or two.

I guess my overall point is that I certainly can't speak with any of the expertise or first-hand knowledge of the other folks in the room and I think it's abundantly evident. But I guess what I hope to do is bring a different perspective, which is, simply just a

134-11 (Cont.)

135-1

reminder that this is a national issue as well something obviously of huge significance to folks here in Alaska.

My wife and I haven't experience the magic of this region yet but we were drawn here by the significance and the uniqueness and the majesty of the region's environment which we've heard a lot about through various channels. In the coming weeks we're going to be having the incredible fortune and opportunity to experience some of it through sea-kayaking on the Sound, through doing a rafting trip from Chitina on down to the Delta and then also hiking in the Wrangells. And we feel really immensely fortunate, I can't emphasize that enough to have that opportunity. We're really among the fortunate few from outside of Alaska who do have an opportunity to experience this directly and the wonders that this region has to offer. But even if we never had the chance to come here and to see this, I think, we feel as -- and we would feel, as I'm sure many, many others, thousands, millions elsewhere in the U.S., in the Lower 48 and Hawaii would feel and probably internationally as well, no doubt, that this region has incredible value for a variety of reasons. There's extrinsic value to the natural wonders of a place like this, whether or not you ever get to see it, whether or not you benefit from the economic returns that it can provide through fishing and

135-1 (Cont.)

135-2

so forth. There's just extrinsic value knowing that a place like this is intact and spectacular as it is, exists. Also it has incredible significance for migratory species that depend on habitat that this area provides but that also reside or pass-through other parts of the United States and other countries. 135-2 (Cont.)

We've been away from the news for the last several weeks on part of a -- sort of an earlier part of this overall adventure but I would strongly doubt that many people elsewhere in the country have any idea that this issue is even going on right now, I certainly had I no clue and I work in the conservation field. I try to pay attention to issues beyond just the Northeast and had no idea. I can't imagine there's been a lot of coverage in this in the New York Times, let alone in papers like the Burlington Free Press or whatever. I'm sure there are loads of people in the Lower 48 and beyond who are uninformed. And because of that I guess I would strongly support the suggestions that have been made by most of the other people earlier this evening about extending the comment period and specifically, I think at least 180 days would be a minimum for adequate time for folks, both here in Alaska and throughout the rest of the country to get educated about this and to have an opportunity to participate. It's obviously a hugely 135-3

significant issue and has very complicated aspects to it, technical, political, social, environmental and so forth and there probably could never be enough time but I would certainly say that the comment period at this point is inadequate.

Also sort of related to that I would say that given the significance of the issue, I think it's reasonable to have a great deal more public meetings, not only here in Alaska but also outside the country on the West Coast, as was alluded to before, but also I think elsewhere. You know, there are folks who would, I think, would like to get educated and would like to have an opportunity to participate. I think the Valdez spill in '89 brought this region to the attention of a lot of folks who didn't know about it before and who would really like to have an opportunity to weigh in now. 135-4

Related to that, also, I guess, I don't know the extent of congressional oversight on this issue and on the process but given the national significance if not international significance of it, I certainly hope there is a substantial amount. And I certainly intend to write the Vermont Congressional Delegation urging them to pay close attention to what's going on here, both in terms of the process and the substance of what's occurring. 135-5

I wanted to also augment earlier comments that were made about the economic significance of the fisheries and the subsistence implications of the pipeline and potential spills here in the watershed and so forth but it really applies more broadly to the entire extent of the pipeline throughout Alaska. Really with the reminder that I think my wife and I represent about the economic benefits from tourism from folks like ourselves that are potentially jeopardized by threats to Alaska's magnificence environment by potential failures of the pipeline, by other spills and other impacts related to the extraction of North Slope oil. 135-6

And I guess, finally, I would just say that as I alluded to before, you know, I certainly don't have any prior or first-hand involvement with the spill -- or excuse me with TAPS and Valdez and so forth, I have a sort of broad familiarity with it from national media coverage and so forth, don't have any of the direct expertise or the detailed knowledge, first-hand experience that many folks here in this room and obviously, undoubtedly elsewhere in Alaska that have, there's obviously a huge amount of knowledge and I think a lot of good ideas. And I guess I would just urge you to really pay attention to the wisdom that's being shared in the room this evening from the others who have spoken

and to adopt their recommendations.

Thanks very much for your time.

HEARING OFFICER GEARY: Thank you. Carol Hoover.

00136

MS. HOOVER: Hi. Carol Hoover, I'm representing myself as a United States citizen.

I want to say that I agree with everything here that's been said tonight. And I'm really appreciative of all the knowledge that I've heard and more that I've learned tonight about this issue. But from my own perspective I want to, again, acknowledge that the pipeline carries a very toxic substance and it's a poison and we can't forget that. It's very, very poisonous. And as we are now learning currently it's actually a thousand times more toxic than we previously thought, so I want to underscore the fact that we know now and I'm sure you'll be hearing this more over the next few years, that it is one part per billion of hydrocarbons dissolved in saltwater that harms the reproductive ability of salmon and it's multi-generational. In other words, it hurts the salmon's DNA and it hurts the embryos and it compounds and so it's much worse in the food chain than we previously thought. 136-1

So I say that if the pipeline is going to continue running down in the middle of Alaska that as an 136-2

American citizen, I demand that there are no spills. I demand it. It's absurd to say that we don't have the technology to demand that and if we can't afford it then I have to say I completely agree with Gabe, that there should be no pipeline. That it should be shut down until we know that it's safe and I think I speak for everybody in that regard. And for the wild salmon and for our sustainability on the planet and so on. 136-2 (Cont.)

Also I have to say that we don't know how to cleanup oil spills. I don't care what anybody says. Dune went out into the Sound a few months ago, they landed on a beach, they dug and there was oil. We don't know how to clean it up. Anybody that knows the facts of the spill knows that it was a sham. So therefore, I don't trust the oil industry. I've done a lot of research myself, I kind of know what's happening across the world, I've seen films of mothers standing in fields trying to stop planes from coming into their indigenous lands. I know of a woman here in town who has stood in front of -- well, there was a blockade here in the Sound, you know, and they're even thinking about bringing the Valdez back into Prince William Sound, it should never have come back here. So I don't trust the oil industry. I actually despise the fact that I have to use petroleum as much as I do. 136-3

And unfortunately and, please, I say this with all due respect, I do not trust the effectiveness of government agencies to oversee the monitoring of this pipeline renewal, lease renewal system, especially after the knowledge and the wisdom and the words that I've heard here tonight from people who are very, very well respected, like Richard Fineberg and Kristin and everyone, so I do so say that with great respect about my lack of trust. 136-4

So therefore, I demand as a United States citizen that all parties concern face the fact that we're being pressured by an administration that's pushing oil at all costs and pushing profits at all costs and pushing deregulation at all costs. And I say that you people here tonight have to have the courage to speak for that fact. That you're going to be pressured to get this lease to be renewed. And so, I also demand that a process must be put in place that we can trust and if not, then there should be no pipeline renewal. 136-5

I also demand that a 180 day comment period is what is needed at the very least. And that this does, thanks to our friend here, I agree, must be a national discussion, this is not just an Alaskan discussion. Although their opinions and experiences should be first and foremost in front of the public. 136-6

Again, the Copper River Delta is one of the last wild salmon bearing areas on the planet of this magnitude. If there's a spill in the Copper there'll be hell to pay. 136-7

I say no renewal.

Thank you very much for your time.

HEARING OFFICER GEARY: Thank you, Carol. Altana Olsen.

00137

MS. ALTANA OLSEN: My name is Altana Olsen. I'm an Alaska Native. My parents -- my mother was born in Tatitlek and it says that she -- because she was from Tatitlek she does subsistence but Cordovans, according to the EIS does not say that we survive on subsistence and I disagree with that. It needs to be put in there what Alaskan Natives in Cordova actually do and, yes, we do survive on subsistence. 137-1

I have lived here all my life with the exception of four years in Anchorage. Many of my classmates fished and many of them have had to do another job because of what has happened with the Exxon Valdez Oil Spill. And with the Exxon Valdez Oil Spill, it needs to be paid before this renewal happens. You guys need to look at Cordova as people and not as -- quit looking at just what the oil brings in. 137-2

And so the other thing that I have to say 137-3

is this comment of 45 days is not long enough. 137-3 (Cont.)

And also that this meeting should not be held on a Friday night, it should be with individual groups on their own territory. You guys should be meeting with the Native Village of Eyak as a group at the tribal council office or at one of the places that the Native Village of Eyak decides it should be. You should meet with the Copper River fishermen on their time, not 137-4
when they're fishing, not when they're out there trying to make money to survive, you should be meeting with them when they can be there, not when it's convenient for you guys to come here and meet. A public opinion needs to be met with everybody involved who is effected. And everyone who's involved should be able to have the right to be able to speak.

I thank you for taking the time to come here. And I would really like that it to be longer, at 137-5
least 45 more days, if not longer than that. And take into consideration what Alaska Natives live here, subsistence is not only brought to my house, it is also brought to other people outside of Cordova and you're not 137-6
only affecting me, you're affecting everyone else that I give subsistence foods to.

Before 1989, I used to look forward to 137-7
our herring fisheries, Cordova was bright lively,

wonderful place to live, now, I don't know if my son will be able to come back here and live in this town because I don't know what's going to happen with the economy and that is a direct result of Exxon Valdez Oil Spill and I want people to take that into consideration and think about everyone that is being affected.

137-7 (Cont.)

Thank you.

HEARING OFFICER GEARY: Thank you. All right, I have no more cards for folks indicating that they're going to speak so let's go ahead and we'll take another 10 minute break and at the end of the break see if there's anyone else who would like to speak. So we'll take 10 minutes, off record.

(Off record)

(On record)

HEARING OFFICER GEARY: All right, I want to call this meeting back to order. All right, during the break we've been provided comments from Scott Metzger, Brian Parson and Walter Cox that will be added to the record.

(Hearing Exhibit 6, 7, 8 marked)

HEARING OFFICER GEARY: All right, we have some more speakers that would like to make some presentations and the first is Sheelagh Mullins. 00138

MS. MULLINS-ROWANE: Hello. My name is

Sheelagh Mullins-Rowane. I first came to Cordova in 1963 and started fishing the Copper River Flats. And I've been involved in Cordova -- I've lived in Cordova for many, many years.

I want to reiterate, basically what everyone has said here, almost everyone. It's most important that we extend the date of any input from the fishermen. Our fishermen are fishing right now. It seems quite remiss that this could occur when the bulk of the population are not here to comment. 138-1

Secondly, I do believe that what happened before the oil spill is that we requested baseline studies of Prince William Sound and were promised that there would not be one drop of oil in Prince William Sound. Well, I do feel that we need to have baseline studies of the pipeline before any leases are renewed. So that needs to be done by an independent company prior to any leases being renewed. 138-2

We also need to have audits, independent audits. We have new science that's available constantly to us, particularly regarding global warming and we need to have input from all responsible scientific research on that. 138-3

And we also should have input from the employees. That is very, very important. They are the 138-4

people that know what is going on and where. We can read about it, we can see pictures of it but we're not there actually hands-on as the employees are and there should be a program for employees to be able to do that without any consequence to their employment. 138-4 (Cont.)

Now, most of the talk tonight has been on subsistence and commercial fishing, or a lot of it anyway. What we need to point out here is that Copper River Delta is one of the most productive wildlife nurseries in the world. Any damage to it would impact the planet. It is that enormous. It is the most important stopover for millions of shorebirds and that includes most of the western sandpipers. It is a part of the western hemisphere shorebird reserve network. It is the most important part. These birds then go on up to the Yukon-Kuskokwim Delta and the Arctic and reproduce. If those particular species are wiped out because they -- most of them come through here, there are, of course, many other shorebirds that come through here, if these species are wiped out, it will have an impact on the planet. 138-5

And the herring actually were only mentioned once tonight, to my knowledge. Altana Olsen mentioned the herring and that was a very important commercial fishery for us, it has collapsed. But more 138-6

importantly, I believe, in the whole picture here is that the herring are an important oily fish that are crucial in the food chain, so we're seeing problems now with sea lions who are very definitely impacted by the lack of herring. Our herring have not survived the Exxon Valdez Oil Spill. So we don't have a fishery and we don't have a part of the food chain in sufficient quantities. 138-6 (Cont.)

So we need to look at the whole picture and not just commercial fishing and subsistence and, you know, the social impacts, we need to look at the Copper River Delta and Prince William Sound as being very, very important in the whole ecology of this planet. 138-7

Thank you.

HEARING OFFICER GEARY: Thank you. Lauren Padawer.

00139

MS. PADAWER: Padawer.

HEARING OFFICER GEARY: Padawer?

MS. PADAWER: Yeah. Thanks. Well, I'm not from Alaska, I'm from another river called the Mississippi and I've rafted down the Copper and I can see firsthand the 180 degree differences between these two watersheds. I know that there is miles of dead zone at the delta of the Mississippi and I would hate to see that here in Cordova. 139-1

I know people have said nearly everything

that could be said, which is why I didn't come up here until late. But I want to reiterate that this one public meeting isn't enough due to all the reasons of people being out fishing in the middle of the season, on a Friday night, you know, 7:00 p.m., I hope to see another meeting scheduled here in the next 90 to 180 days. 139-2

Another reason I came up here is because I have this vision of, like, lines, you know out of this building, people waiting to say something because this community, more than any other community maybe on the planet or as much as any other community, understands environmental injustice to rural places and corporate irresponsibility. The finite amount of oil up there is not worth the risk. It's not the worth the risk to open up the Arctic National Wildlife Refuge. It's not worth the risk to continue bringing it down the pipes. The pollution of hydrocarbons out of exhaust is already contaminating water more than one part per billion. It's already destroying fisheries on a global level. Even the oil companies realize that the end of petroleum and renewable fossil fuels is in view. 139-3

They've invested -- or they're only interested in sucking the last drops of oil out of here like a vampire on the earth. Well, they're also investing in alternative energies like solar, wind and 139-4

fuel cells. They have abused us and they'll continue to use us until the last oil is gone. 139-4 (Cont.)

Our grandchildren will probably know Exxon not as an oil company but as a hydrogen company. And may our grandchildren also know that the Copper River is a river of life and not a region devastated by oil.

My one last comment is that if there's one thing all Alaskans can agree on, whether you're an oil rig operator or whether you're a school teacher or whether you live in Cordova, the North Slope, Anchorage, Fairbanks, is that, we like fish and we like clean water and many people have spoken to the fisheries end of things but clean water, too, is our birthright. And since I didn't grow up in Cordova or Alaska, I certainly don't take this for granted that I can walk 10 minutes from my house and fill up a jug of water and drink it just like that and, to me, I know it's a gift and at the same time I feel it's a human right and I hope that Cordovans in perpetuity can enjoy that living in this watershed. 139-5

So may our compassion for these people and overcome, you know, their greed and our abuse. Thank you.

HEARING OFFICER GEARY: Thank you. Kate Williams.

MS. WILLIAMS: My name is Kate Williams and I work for the Native Village of Eyak as an anthropologist and it is part of my job to review this EIS and I've worked on it eight hours a day since it's been released and I have not read the whole thing. I have read one volume which my comments address.

The first comment is that there must be an extension for people to adequately address the EIS. 140-1

Section 2.5.5 states that BLM has an Alaska Resource Advisory Committee that advises the agency on matters related to the Trans-Alaska Pipeline system. Who is on this committee? Does it have tribal representation? The DEIS says that they can't form another committee. This is not true. The DEIS also cites that quote, the Federal grant provides significant discretion to the authorizing officer in exercising authority to correct problems. It enables the government to change requirements to respond to changing situations. There must be a review of this committee and there must be tribal representation on this committee. 140-2

The Native Village of Eyak objects to the treatment of subsistence as part of economics. The Draft EIS states in numerous sections that as wage employment increases, subsistence needs decrease and vice-versa. This demonstrates a lack of understanding of subsistence 140-3

and culture. Subsistence by tribal members has very little to do with economics and everything to do with culture. Tribal and Fish and Game sponsored research has demonstrated that subsistence occurs regardless of what wages one might be bringing in and it's not replaced simply because food items are available at a grocery store. 140-3 (Cont.)

Section 3.19.1.3 on Prince William Sound fish, reptiles and amphibians relies on very few references to the enormous amount of data that exists on fisheries alone. This section pits data collected by consultants funded by Exxon money with scientists funded by the Exxon Valdez Oil Spill Trustee's Council at respected State and Federal agencies and universities. It is not appropriate to base conclusions about effects of the TAPS on Exxon funded bias research. 140-4

Section 3.24 on subsistence states that the flow of subsistence resources through primarily Natives sociocultural systems via several exchange mechanisms is one of the factors of complexity. Because subsistence resources disportionately effect Alaska Natives, this issue should also be analyzed as one of environmental justice in the Draft EIS as required under Executive Order 12898. 140-5

We object to the incorrect 140-6

characterization of subsistence as, quote, a collection of opportunistic behaviors in Section 3.24.1 community harvest patterns. Subsistence is a way of life that is scared, deeply embedded in a culture of a tribe and its members and passed down from generation to generation in a very deliberate and ritualistic way. 140-6 (Cont.)

Section 4.7.8.2 sociocultural systems incorrectly states that impact from tanker spills to sociocultural systems in Prince William Sound would be small due, in part, because, quote, the only documented subsistence areas in Prince William Sound are in Chenega Bay and Tatitlek, end quote. This is untrue. And impacts from the Exxon Valdez Oil Spill were not small. 140-7

The EIS cites numerous times the lack of quality subsistence data. The Department of Energy, the Department of the Interior and the Bureau of Land Management must fund tribes and other organizations to conduct research into subsistence and effects of the TAPS on subsistence prior, present and future. Tribes have the capability, research, experience, credentialed staff and know better than many others what subsistence means and how it is linked to their culture and very existence. 140-8

The length of the comment period, again, is too short. Government to government consultation has not been done in this comment period. BLM has a 140-9

consultation policy that is not being followed. All agencies that form the Joint Pipeline Office are bound by either Federal trust responsibility, executive orders and the own approved Department Consultation Policy or by the Millennium agreement with the State. Sending letters to tribal council presidents and meeting face to face should be the beginning of meaningful dialogue. NVE's comments and concerns have not been given the attention they deserve. 140-9 (Cont.)

Attention to Federally-recognized tribes in the Draft EIS is inadequate. We have problems with language used regarding tribes and consultation and subsistence and sociocultural system sections. This demonstrates a lack of understanding that these aren't simply communities or villages, these are recognized forms of government with elected tribal councils and are afforded status as sovereign nations. 140-10

The Department of Energy funds a lab called Argonne National Laboratory at the University of Chicago. This is who conducted the Draft EIS. We believe it is a conflict of interest for the Department of Energy to be funding research into the renewal of the TAPS. In addition, no Alaska Natives or any Cordovans were employed on this EIS and there's a plethora of knowledge among those people that should have been 140-11

utilized.

Section 3.11.5, Exxon Valdez spill background and 3.11.5.2 current conditions site only TAPS owners and Exxon funded researchers as sources for the effects of the spill. There's no mention of the EVOS Trustee Council funded research over a 13 year period to-date. The DEIS states, quote, there was no evidence of large scale, offshore transport of Exxon Valdez crude to subtidal sediments, end quote. They also cite research that there was more oil naturally occurring in unoiled cites in Dryer Bay than at the oiled Bay of Isles at Knight Island. This is incorrect research. It is not reliable research and it should not be the basis for decisions that are made in the EIS.

Thank you.

HEARING OFFICER GEARY: Thank you. Ms. Williams, are your comments such that you can let us have a copy of it?

MS. WILLIAMS: Yes, we will be submitting written comments

HEARING OFFICER GEARY: Thank you. All right, that's the last of the folks that have signed up to testify tonight. Is there anyone else in the crowd that has not yet spoken who would like to? With that, I would like to thank you all for attending tonight and

140-11 (Cont.)

140-12

encourage you all to take advantage of the ability to comment, either in writing, by phone, by e-mail and the other methods that we mentioned tonight.

MS. HOOVER: I have one question.

HEARING OFFICER GEARY: Yes.

MS. HOOVER: Who would decide to -- I mean how can we get the comment period extended? 136-8

HEARING OFFICER GEARY: That request has -- it's my understanding that request has been made and is currently under consideration.

MS. HOOVER: By who? Who's considering it?

MR. BROSSIER: I can answer that Dennis.

HEARING OFFICER GEARY: Please.

MR. BROSSIER: The request is made by the Secretary of the Interior.

MS. HOOVER: Secretary of the Interior.

MR. BROSSIER: Yes.

MS. HOOVER: And what's that person's name?

MR. BROSSIER: Gail Norton.

MS. HOOVER: Oh, Gail Norton, oh, yes, I see.

MR. FINEBERG: And also to Pourchot on the State side.

MS. HOOVER: Pourchot, okay.

MR. FINEBERG: Yes.

MS. PADAWER: What's the e-mail address for submitting comments?

HEARING OFFICER GEARY: It's listed on the forms on the back table back there. All right, with that, I'm going to close the hearing. As an administrative note we've been asked that there was a nice desert potluck back here tonight and we can't leave it here, so I would just ask that for those of you helped organize it, maybe you could help make sure that it gets to a nice home tonight.

Thank you all for coming.

(ADJOURNMENT)

C E R T I F I C A T E

UNITED STATES OF AMERICA)
)ss.
STATE OF ALASKA)

I, Joseph P. Kolasinski, Notary Public in and for the state of Alaska, and reporter for Computer Matrix Court Reporters, LLC, do hereby certify:

THAT the foregoing Bureau of **TAPS Renewal DEIS Hearing** was electronically recorded on the 26th day of July 2002, in Cordova, Alaska;

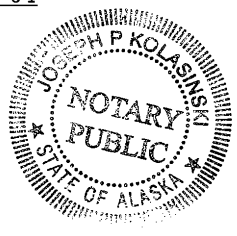
That this hearing was recorded electronically and thereafter transcribed under my direction and reduced to print;

That the foregoing is a full, complete, and true record of said testimony.

I further certify that I am not a relative, nor employee, nor attorney, nor of counsel of any of the parties to the foregoing matter, nor in any way interested in the outcome of the matter therein named.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 10th day of August 2002.

Joseph P. Kolasinski
Notary Public in and for Alaska
My Commission Expires: 04/17/04



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Responses for Document 00115

00115-001: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00115-002: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00115-003: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00115-004: The current Federal Grant and associated stipulations, along with the provisions of TAPAA, provide BLM with extensive and ongoing regulatory control of TAPS operations. These conditions would not change upon renewal.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00115-005: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00115-006: For Spills Impact Analysis, data from the TAPS owners were mainly used to determine the appropriate assumptions for location and volume of oil spills. For Human Health and Safety, Food Chain Impacts, the DEIS analyses mainly relied on peer-reviewed seafood contamination data from NOAA which were obtained through the oversight of the Oil Spill Health Task Force.

Data on the toxicity of the PAH components were obtained from EPA and the open literature (see Section 4.4.4.7.4 for citations). Similarly, to assess the potential human health impacts from inhalation of crude oil components in the vicinity of a spill, toxicity data from appropriate independent agencies were used (e.g., American Conference of Governmental Industrial Hygienists; see Section 4.4.4.7.2). To assess potential impacts from chronic inhalation of emissions from TAPS associated facilities, EPA toxicity values were used (see Section 4.3.13).

00115-007: The Grant/Lease holds APSC responsible for maintaining normal operating conditions throughout the Grant period. The Design Basis for TAPS has undergone review and approval, as have any subsequent changes to the design basis. Thus, the normal operating condition of TAPS is a legitimate reference point from which to identify and evaluate environmental impacts. That being said, off normal conditions can exist in a number of TAPS subsystems without compromising the subsystems' ability to meet performance objectives or resulting in adverse environmental impacts. For instance, there is no evidence that the alleged problems with waxy solids in the BWTF 90s tanks have resulted in off-normal effluent discharges from the BWTF, which have had an impact on the environment or public health and safety. The Alyeska Annual Data Report for June 2000-May 2001, filed with the EPA and ADEC pursuant to Part III.B.6 of NPDES Permit No. AD-002324-8, shows the effluent from the BWTF did not exceed the specific limits established in the Permit regardless of certain less than optimum plant subsystem operations. The EIS does address with the impact of contaminants on the environment and public health from all TAPS sources, at times, based on compliance filings, using the permit limits as the maximum contaminant discharge to the environment.

00115-008: The DEIS reported a total of 26 tankers, which is composed of 10 tankers operated by the Alaska Tanker Company, LLC; 8 tankers operated by Polar Tankers, Inc.; 6 tankers operated by SeaRiver Maritime Inc.; and 2 tankers operated by Seabulk International, Inc. The list of tankers was based on data provided by the APSC and confirmed using information collected by the British Columbia Oil Spill Task Force Prevention Project (available at http://www.ecy.wa.gov/programs/spills/prevention/bap/TAPS%20Trade%20Tanker%20Report.htm).

The comment is incorrect because the expected TAPS throughput is projected to be around 0.21 million barrels per day in 2034, which is lower than the cited value of 1 million barrels per day. The lower TAPS throughput coupled with the provision that all TAPS tankers will have double hulls can be expected to reduce the risk of marine transport of North Slope crude oil.

00115-009: Events such as the EVOS accident are considered rare events. Rare events, although would have a low probability of occurrence, could happen anytime. Simply because a rare event has occurred over a time span in the past, is no guarantee that it will occur again over the same time period in the future. The probabilities of rare events are estimated based on a consideration of a single or a series of smaller occurrences that lead to the final accident. The probabilities of intermediate occurrences are estimated based on historical data, engineering design specifications of the equipment involved, experience with similar industries or designs, and in some cases expert judgment and are combined to come up with the probability of the overall event.

After the EVOS spill incident, numerous improvements have been made to reduce the likelihood and/or expected outfall from a catastrophic tanker spill. These measures include the creation of the Ship Escort Response Vessel System (SERVS) and phase-in of double-hull tankers. Double-hull tankers alone are expected to reduce spills by more than 80%. Other key spill prevention measures include provision of tanker escorts, more stringent weather constraints on tanker operation, use of ice routing measures, and mandatory alcohol testing of tanker officers.

00115-010: The EIS makes a clear distinction between regulatory controls and environmental impact assessment. Section 4.1 of the EIS discusses regulatory controls that address mitigation of environmental impacts. Section 4.2 of the EIS develops impacting factors that could result in changes to the environment. These impacting factors serve to focus the assessment that follows.

Responses for Document 00116

00116-001: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00116-002: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00116-003: The BLM appreciates the concern expressed in this comment and believes that the following items when taken collectively show that resources and legal commitments are in place to ensure full cost recovery for the dismantlement, removal, and restoration of the right-of-way upon termination of the TAPS system.

1. The Code of Federal Regulations (43 CFR 2883.1-4) requires each owner company (the parent company) individually and jointly to demonstrate its financial ability to remove all improvements and equipment and to restore the land to a condition satisfactory to the Authorized Officer or to pay the cost of such removal and restoration. The Federal Grant stipulation 1.10 (Completion of Use) implements this code by stating that owner companies "promptly remove all improvements and equipment, except as otherwise improved in writing by the Authorized Officer, and shall restore the land to a condition that is satisfactory to the Authorized Officer or at the option of Permittees pay the cost of such removal and restoration."

2. TAPS ownership is defined as joint and several and thus if one or more owner company cannot meet its DR&R obligations, the other companies are liable.

3. Under the terms of the Federal Grant the Authorized Officer can add additional requirements for removal and restoration actions.

4. While requiring actual cash escrow accounts for dismantlement, removal, and restoration is not within the jurisdiction of the Department of the Interior, the Federal Energy Regulatory Commission (FERC) in the Department of Energy has primary authority in this area. See the FERC Settlement Agreement for further details.

5. DOI has total protection in the guaranties.

6. Trans-Alaska Pipeline Authorization Act (Title I, amendment of Sec 28 of the Mineral Leasing Act, Section 28 (r)(2)(B)(5) provides further protections and recourse, if the Secretary has reason to believe that any owner or operator is nor fulfilling any of its obligations as a common carrier, including completion of use.

00116-004: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00116-005: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00116-006: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent's office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00116-007: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00116-008: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00116-009: The seismic design of the pipeline took all active faults into consideration. To reduce the likelihood of pipe rupture at the fault crossings, the pipe is above ground and on supports that allow relative displacement across the fault. The pipeline design was based on the possibility that severe seismic events could occur. Section 4.4 of the EIS discusses the spill scenarios considered and the estimated impacts from those scenarios. The scenarios range from high frequency/low consequence events to low frequency/high consequence occurrences. Potential seismic activity and fault displacements along the pipeline were included as potential spill initiators. The discussion includes potential impacts in the Copper River drainage area. Oil spill prevention and response capabilities and related activities specific to the Copper River drainage area are discussed more fully in the text box that has been added to Section 4.4.4.3.

00116-010: As described in the FEIS, Section 3.13.2, ambient air quality conditions are monitored at the Valdez Marine Terminal, and the data are used to determine compliance of TAPS facilities with state and federal standards.

00116-011: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

Responses for Document 00117

00117-001: Your concerns are well focused on TAPS components and controls, the performance of which are thought to be critical to pipeline integrity.

Corrosion control programs are outlined in Section 4.1.2.3. Instrument pigs as well as surveillance and monitoring of TAPS corrosion control systems provide the data with which to evaluate the continued adequacy of the TAPS corrosion control programs and undertake necessary repair actions before corrosion can advance to compromise pipe integrity.

Continued stability of vertical support members (VSMs) is obviously essential to pipeline integrity. Various natural forces (e.g. river scouring, floods, glacial movement, and earthquakes) can impact VSM stability. Man-made factors such as warm oil in the pipeline can induce thawing of the permafrost in which some VSMs are installed, and thus also jeopardize VSM stability. All such impacting factors were anticipated and mitigative design requirements were included in the grant stipulations and incorporated into the original design basis for the pipeline. The mitigative design features are discussed in Section 4.1.2. River crossings provide unique challenges. Natural factors such as river scouring, erosion, ice formation, flooding, and river channel meandering can all impact VSM stability. Special design considerations were used when the potential for such natural destructive forces was present. In addition, river crossings are inspected on a routine schedule and after each significant precipitation event to ensure that mitigative design features remain effective. River training structures are also installed when natural river forces threaten VSM stability. Special design considerations for river crossings are discussed in Section 4.1.2.5. In addition, continuous monitoring and surveillance programs ensure the continued adequacy of these mitigative design features. Integrity monitoring of VSMs as well as other components comprising the pipeline structural supports is discussed in Section 4.1.3.2.1.

00117-002: VSM stability is obviously critical to TAPS integrity. As such, it is the focus of extensive monitoring and surveillance. The impact of warming in Alaska on the stability of TAPS is presented in Section 4.3.2, “Soils and Permafrost.”

The warming in Alaska in the last several decades is recognized. Evidences of warming in areas surrounding Alaska, including the Arctic Sea, as well as air temperatures, permafrost temperatures, and field observations in thermokarst lakes and glaciers are presented in Section 3.12.7.

00117-003: RCM is a sound tool, but is not the whole of government monitoring for the next 30 years. Section 4.1.1.2 presents JPO’s adaptive management and interagency monitoring efforts.

Responses for Document 00118

00118-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00118-002: Please see the text change in Section 4.3.2 (Soils and Permafrost) of the FEIS.

00118-003: The potential impact of earthquakes has been recognized and considered in the design of the pipeline. The stability and integrity the pipeline are critical to the pipeline's operation.

Please note that the pipeline behaved according to the design criteria under the stresses imposed by the November 3, 2002 earthquake.

We know of no valves that leak oil to the environment. There are several valves with measurable leak through, but the rates are so low, they would not significantly impact spill volumes. The TAPS Valve Maintenance Management Program monitors valve condition (Section 4.1.2.8).

APSC is currently involved in a multiyear valve testing and repair program, which will address problems with the valves. Recent investigations of certain valves on the TAPS have shown internal leaking where product in the pipeline leaks through a closed valve designed to stop oil flow. Although leaking of the valve is not a leaking of oil to the environment, valve leaking could increase the potential volume of a pipeline spill. Risk assessments are conducted to determine the risks associated with leaking valves, and valve repair and/or replacement jobs are prioritized based on the risk estimates.

00118-004: The BLM has the necessary authority under the Federal Grant and TAPAA to rigorously enforce compliance with all current and future stipulations.

The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00118-005: Oil spill prevention and response capabilities and related activities specific to the Copper River drainage area are discussed more fully in a text box that has been added to Section 4.4.4.3.

00118-006: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00118-007: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

Responses for Document 00119

00119-001: Please see Section 5.2 in the FEIS for information on the public notice and involvement implemented for review of the DEIS.

00119-002: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00119-003: Oil spill prevention and response capabilities and related activities specific to the Copper River Drainage are discussed more fully in the text box in Section 4.4.4.3 of the EIS entitled "Oil Spill Planning for the Copper River Drainage."

The BLM and member agencies within the JPO utilize an adaptive management approach in the oversight of TAPS operations and maintenance. Adaptive management uses ongoing surveillance, monitoring and testing that provides APSC and JPO with the data and information necessary to evaluate and change, if conditions warrant, the operations and maintenance of TAPS. Examples include:

- On-going oil spill contingency planning (tri-annual) and response capability reviews (annual),
- Field surveys of stipulation requirements, such as fish passage inspections,
- Comprehensive Monitoring Reports (12 published since 1996),
- Issues raised by the public (e.g., the Thompson Pass slack line and the Valdez tugs) and by the APSC workforce (e.g., electrical),
- Inspections by the State Fire Marshal as part of the JPO, and
- Routine surveillance that is outside of formal audits.

In addition, the BLM and member agencies of JPO in close cooperation with APSC have begun a systematic process to identify the critical functional components of TAPS. The process, called reliability centered maintenance (RCM), is an on-going system-by-system audit that determines function, failure modes, consequence and preventative maintenance of critical systems. The BLM is committed to RCM and believes that this process represents a pro-active approach to oversight and regulation of TAPS. In addition, RCM is the industry standard for reducing risk of failure to critical system components. Reducing risk in TAPS critical systems directly translates to reducing safety and environmental risks.

00119-004: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

Responses for Document 00120

00120-001: Thank you for your comment.

00120-002: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00120-003: The reader is directed to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00120-004: Additional consultation with ADFG and the US Forest Service resulted in access to GIS data documenting the traditional subsistence use area of Cordova residents (including Eyak Tribal members) based in interviews conducted by ADFG in the late 1980s. This subsistence use area is now included in Map 3.24-1, and displayed in more detail in Section D.2.3.4.2.

With regard to seeking Tribal input on this document, in April 2002 EIS personnel contacted the 21 directly affected villages/tribes by certified mail to explore the acquisition of additional information, including traditional ecological knowledge pertaining to subsistence (which could have included geographic information on subsistence harvest areas). These letters were sent to the tribal councils of Eyak, Pt. Graham, and Nanwalek. To date, no response to those letters has been received. In addition, the EIS process has been coordinated through government-to-government interaction between the Bureau of Land Management, the State of Alaska, and federally recognized tribes in Alaska that has been ongoing since April 26, 2001, as described in Section 5.3, Table 5.3-1.

00120-005: The authors of the DEIS and FEIS evaluated and used references from academia, not-for-profit organizations, industry, and government sources. Sources of funding for the authors of the studies were not used as a criteria for selecting references or source material.

00120-006: In the identification of subsistence concerns explored in this EIS, the document identified sociocultural and ceremonial roles of this activity for Alaska Natives in addition to economic roles. Although the EIS briefly considers the monetary value of subsistence harvests (see Section 3.23.5), it does so only to provide a rough sense of the relative economic importance of such harvests compared to state income and expenditures and is by no means the focus of the subsistence analysis. A discussion of federally recognized Native Villages has been added to Section 3.25.1.2.

The EIS does use the Handbook of North American Indians to frame the discussion of Alaska Natives. It is not the only source used, however, and in preparing the FEIS additional sources have been consulted. The authors of the EIS requested additional information from the 21 directly affected federally recognized Tribes in April 2002 via certified mail. To date, none of these Tribes has responded.

Only a portion of the members of the Native Village of Eyak are ethnically Eyak, and then their heritage is mixed. This does not mean the contemporary Native Village of Eyak is not forging its own culture from the many Alaska Native sociocultural systems represented there, including Eyak, Alutiiq, Tlingit, and Athabascan. That in no way makes the resulting sociocultural system of any less worth than traditional Eyak culture.

00120-007: Thank you for your comment.

00120-008: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue dialogue with the Bureau of Land Management.

00120-009: The FEIS contains information on spill planning, response, and mitigation for the Copper River Drainage (see the text box in Section 4.4.4.3).

Responses for Document 00121

00121-001: Thank you for your comment.

00121-002: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue dialogue with the Bureau of Land Management.

00121-003: The BLM has jurisdiction over the TAPS right-of-way. The right-of-way begins at Pump Station 1 and ends at the loading arm(s) located at the Valdez Marine Terminal. The EIS analyzes the cumulative impacts of transporting oil on tankers through Prince William Sound and West Coast ports. The transport of oil by tanker in the marine environment is under the jurisdiction of the U.S. Coast Guard and the U.S. Department of Transportation.

00121-004: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00121-005: The EIS addresses the no-action alternative of not renewing the Federal Grant of Right-of-Way. Analyzing other means of transporting oil to market from the North Slope is beyond the scope of this renewal decision.

00121-006: Please see Section 2.5 of the FEIS for information regarding citizens’ oversight.

Responses for Document 00122

00122-001: Thank you for your comment. Previous reports were considered in preparing the DEIS.

00122-002: As part of the renewal application process, an applicant provides the BLM with a description of how TAPS would be operated. The description of the operation then becomes a the starting point of an independent impact analysis conducted by the BLM. In addition, the JPO conducts a number of independent analyses and studies, many of which are conducted by well respected third parties. These studies provide essential background information.

Responses for Document 00123

00123-001: Please see Section 5.2 in the FEIS for information on the public notice and involvement implemented for review of the DEIS.

00123-002: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00123-003: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00123-004: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

Responses for Document 00124

00124-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00124-002: While maps in the printed version of the EIS and the environmental atlas appendix were not provided as overlays, the entire document is available as a high-resolution file that can be downloaded from the Internet, and is also available on a CD-ROM.

00124-003: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00124-004: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00124-005: Spill prevention and response are discussed in the EIS in Section 4.1.4. This section includes a discussion on the requirements for contingency planning. The C-plan for the Copper River provides for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline.

Response crews and equipment for initial deployment are stationed at Pump Station 9, Glennallen, Pump Station 12 and Valdez. The entire region crossed by the pipeline has been characterized with respect to the potential flow of spilled oil. Appropriate containment tactics are described in the C-plan with site-specific descriptions for each identified containment site.

The Region 5 plan, which contains all Contingency Areas that could affect the Copper River, lists 12 Contingency Areas and 38 Segment areas. Each of these 38 segment areas lists priority control actions, and specific containment instructions. Each Regional plan includes tables detailing materials and equipment available for oil spill response at all stations and containment sites.

A primary objective of these strategies is to contain oil before it reaches the Copper River. The C-plan includes establishing containment at the point of entry into the Copper River if oil were to travel that far. Discussions of control actions to take if oil does reach the Copper River are limited, however, there are descriptions of suitable strategies, tactics, personnel and equipment for containment and recovery of oil for the river.

Responses for Document 00125

00125-001: Sections 3.24.2.4.2 and D.2.3.4.2 discuss subsistence in Cordova, while Tables 3.24-1, 3.24-2, and D-26 present subsistence data for Cordova. Both the text and the tables convey that the vast majority of households in Cordova are involved in harvesting subsistence resources and even more use subsistence resources. The data presented indicate that relatively large amounts of subsistence resources, coming from a wide variety of species, are harvested. All of the text and tables cited indicate that subsistence is important to Cordova. The EIS does not state or otherwise imply that subsistence is unimportant in Cordova, and none of the data presented would lead to this conclusion.

00125-002: Thank you for your comment.

00125-003: Your concerns about the adverse impacts of a large oil spill are acknowledged. The information on the impacts of oil spills on birds found in Sections 4.4.4.11 and 4.7.7.3.5 (as well as the overall spill analysis discussion presented in Section 4.4.4) supports the conclusion that most oil spills directly attributable to TAPS would be localized and cause little loss of wildlife resources. The likelihood of a large oil spill from TAPS (especially one into a river) or a tanker spill that could impact thousands of birds would be unlikely to very unlikely, especially since new system requirements and emergency response procedures have been formulated to minimize and contain oil spills.

00125-004: Thank you for your comment.

00125-005: The last paragraph of Section 4.8.3 addresses this issue. However, the text has been revised to more explicitly define use of North Slope oil resources as “depletion and use.”

00125-006: Thank you for your comment.

00125-007: Thank you for your comment.

00125-008: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00125-009: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00125-010: Comments received during scoping are aggregated into a record of public scoping and are used to frame the issues and the analyses in the DEIS. Scoping comments are not listed and identified individually or responded to in the DEIS. Comments received on the quality of the analysis in the DEIS are addressed specifically in the FEIS and may result in text changes to the FEIS as well.

00125-011: Thank you for your comment.

Responses for Document 00126

00126-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00126-002: Thank you for your comment.

00126-003: Sections 3.24.2.4.2 and D.2.3.4.2 discuss subsistence in Cordova, while Tables 3.24-1, 3.24-2, and D-26 present subsistence data for Cordova. Both the text and the tables convey that the vast majority of households in Cordova are involved in harvesting subsistence resources and even more use subsistence resources. The data presented indicate that relatively large amounts of subsistence resources, coming from a wide variety of species, are harvested. The EIS does not state or otherwise imply that residents of Cordova do not heavily rely on subsistence, and none of the data presented would lead to this conclusion.

Responses for Document 00127

00127-001: Thank you for your comment.

00127-002: The reader is directed to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00127-003: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

Responses for Document 00128

00128-001: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00128-002: The reader is directed to the discussion of escrow funds found in Section 2.5.

00128-003: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00128-004: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00128-005: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent’s office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00128-006: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00128-007: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00128-008: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

The text box in Section 4.1.1.8 provides a synopsis of the MP 400 bullet hole incident. Details of the spill and the response are provided. Changes to the pipeline's spill contingency plan that are being made as a result of lessons learned are also discussed.

The TAPS Oil Discharge Prevention and Contingency Plan for the pipeline (C-Plan), prepared by APSC (2001g—see Section 3.30 of the FEIS for the reference), provides for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline, including at river crossings.

The C-Plan is updated periodically and lessons learned from actual occurrences as well as from regular exercises conducted along the pipeline are incorporated into the C-Plan. In addition, the C-Plan is reviewed annually by BLM, every three years by ADEC, and every five years by DOT. EPA also reviews the plan as it applies to pump stations. As part of this process, APSC and the federal and state agencies with oversight responsibilities for TAPS make sure that the appropriate emergency response equipment and personnel are made available along the TAPS.

Responses for Document 00129

00129-001: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00129-002: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue dialogue with the Bureau of Land Management.

00129-003: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

The text box in Section 4.1.1.8 provides a synopsis of the MP 400 bullet hole incident. Details of the spill and the response are provided. Changes to the pipeline's spill contingency plan that are being made as a result of lessons learned are also discussed.

Similarly, other incidents (such as, those mentioned in the comment) have resulted in modifications to the manner in which TAPS is operated. In order to be more proactive, the BLM and member agencies of JPO in close cooperation with APSC have begun a systematic process to identify the critical functional components of TAPS. The process, called reliability-centered maintenance (RCM), is an on-going system-by-system audit that determines function, failure modes, consequence and preventative maintenance of critical systems. The BLM is committed to RCM and believes that this process represents a pro-active approach to oversight.

00129-004: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

The TAPS Oil Discharge Prevention and Contingency Plan for the pipeline (C-Plan), prepared by APSC (2001g—see Section 3.30 of the FEIS for the reference), provides for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline, including at river crossings.

The C-Plan is updated periodically and lessons learned from actual occurrences as well as from regular exercises conducted along the pipeline are incorporated into the C-Plan. In addition, the C-Plan is reviewed annually by BLM, every three years by ADEC, and every five years by DOT. EPA also reviews the plan as it applies to pump stations. As part of this process, APSC and the federal and state agencies with oversight responsibilities for TAPS make sure that the appropriate emergency response equipment and personnel are made available along the TAPS.

Response crews and equipment for initial deployment are stationed at Pump Station 9, Glennallen, Pump Station 12, and Valdez. The entire region crossed by the pipeline has been characterized with respect to the potential flow of spilled oil. Appropriate containment tactics are described in the C-Plan with site-specific descriptions for each identified containment site. For example, the Region 5 plan, which contains all contingency areas that could affect the Copper River, lists 12 contingency areas and 38 segment areas. Each of these 38 segment areas lists priority control actions and specific containment instructions. Each regional plan includes tables detailing materials and equipment available for oil spill response at all stations and containment sites.

The reader is also referred to the text box in Section 4.4.4.3 where spill planning, response, and mitigation for the Copper River Drainage are discussed.

Information has been added to Section 4.7, "Cumulative Impacts on Oil Tanker Transport to their Refinery Destinations."

00129-005: The text box in Section 4.1.1.8 provides a synopsis of the MP 400 bullet hole incident. Details of the spill and the response are provided. Changes to the pipeline's spill contingency plan that are being made as a result of lessons learned are also discussed.

00129-006: Government-to-government consultation concerning the TAPS ROW renewal began between the BLM and federally recognized tribes in April 2001—at the onset of renewal activities. Over the approximately 18 months of EIS preparation several other instances of government-to-government interaction occurred (see Table 5.3-1). Such interaction is anticipated to continue throughout the remainder of this project and activities that follow. Oil spill prevention and contingency plans are discussed in Section 4.1.4.

00129-007: Additional information about the fate and effects of aqueous phase oil has also been added to the discussion of impacts from spilled oil in Section 4.4.4.10. PAH accumulation was detected in mussels used to monitor water quality in Port Valdez as part of a PWS RCAC-sponsored monitoring program (Salazar et al. 2002). In that study, it was found that all measured concentrations of PAHs in water and estimated on the basis of bioaccumulation in mussel tissues indicated that the concentrations of PAHs in Port Valdez waters are in the low parts-per-trillion range, well below the levels that have been associated with adverse effects in herring and salmon embryos (Salazar et al. 2002). In addition, Salazar et al. (2002) did not detect reductions in overall growth of caged mussels that could be attributed to PAH burdens.

00129-008: Thank you for your comment.

00129-009: The reader is directed to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00129-010: Discussions of the Eyak have been modified (and expanded) to provide a more balanced discussion of these people and the Native Village of Eyak in the 21st century (see Sections 3.25.1.1.8 and D.2.3.4.2). In particular, references to Eyak culture in the 21st century have been revised, among other things, discussing the Native Village of Eyak and its composition and alternative criteria for sociocultural affiliation. Section 4.4 of the EIS discusses spills, the likelihood of spills, and impacts of possible spills, effectively addressing the condition of the TAPS with respect to accidents.

Responses for Document 00130

00130-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00130-002: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00130-003: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00130-004: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00130-005: Subsistence data presented in the EIS for Cordova appear in Tables 3.24-1, 3.24-2, and D-26, and are discussed in Sections 3.24.2.4.2 and D.2.3.4.2. Many of the data presented and discussed are from Alaska Department of Fish and Game research in the area over the past two decades. Those data indicate relatively large per capita harvests, relatively large numbers of resources exploited, and relatively high participation and use. All of this evidence of subsistence activity in Cordova is consistent with the comment.

00130-006: Thank you for your comment.

Responses for Document 00131

00131-001: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00131-002: The operation, maintenance, age, and condition (to include structural integrity) of TAPS were considered in the analysis. Structural supports have moved laterally or vertically at various times and locations along TAPS. APSC has repaired those supports before the structural integrity of the pipeline was endangered.

While targeted audits, inspections, field surveys, and monitoring programs provide useful information on the condition of the TAPS, targeted assessments of specific activities do not generally provide the necessary framework to systematically address all critical TAPS functions and their associated reliability. Thus, the BLM and member agencies of JPO in close cooperation with APSC have begun a systematic process to identify the critical functional components of the TAPS. The process, called Reliability-Centered Maintenance (RCM), is an ongoing system-by-system audit that determines function, failure modes, consequence, and preventive maintenance of critical systems. The BLM is committed to RCM and believes that this process represents a proactive approach to oversight and regulation of TAPS. In addition, RCM is widely used in the airline and other industries as the standard tool for reducing risk of failure to critical system components. Reduced risk in TAPS critical systems directly translates

00131-003: The EIS recognizes that there would be potential for impacts to salmon resources if an oil spill occurs in a salmon-bearing stream or river (Section 4.4.4.10). The extent of the impacts would be related to the amount of oil spilled, the size of the receiving stream, and the location of various salmon resources and life stages relative to the spill location. The estimated probabilities of various oil spill scenarios occurring at particular locations along the TAPS are presented in Section 4.4.1.1. APSC's oil spill response capabilities and plans for the TAPS are summarized in Section 4.1.4 of the EIS and explained in detail in "TAPS Oil Discharge Prevention and Contingency Plan" for the pipeline and in the "Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan" for the Valdez Marine Terminal. The plans are available to the public at various libraries in several major cities in Alaska. Oil spill prevention and response capabilities and related activities specific to the Copper River drainage area are discussed more fully in a text box that has been added to Section 4.4.4.3.

00131-004: The comment statements about the importance of commercial and subsistence fishing are consistent with information presented in the EIS (see Sections 3.24.2.4.2 and D.2.3.4.2). The impacts of a spill into a river are discussed in Section 4.4.4.10 for fish and Section 4.4.4.14 for subsistence. The discussion of impacts of spills considers rivers representative of a particular type (based on width, depth, flow, and other characteristics), rather than each of the roughly 800 waterways crossed by the TAPS (see Section 4.4.4.3).

Depending upon the timing and the quantity of oil, it is true that major impacts could occur to salmon in the Copper River if a large amount of oil from a pipeline break were to reach the Copper River. Spills into the Gulkana and the Tazlina Rivers, both tributaries of the Copper that are crossed by the TAPS were considered as part of the spill scenario analyses in Section 4.4.4.10.1. Text has been added to Section 4.4.4.10.1 to reiterate the importance of the Copper River for salmon production in the area and to recognize the potentially severe impacts to salmon in the event of a large spill entering those rivers.

The evaluation of spill impacts did not conclude that a terrestrial spill would necessarily enter surface water to the degree that causes serious impacts, or that a spill in the Copper River drainage would be carried all the way to Prince William Sound in an amount that would cause severe habitat degradation.

00131-005: A discussion of federally recognized Native Villages and Tribes has been added to Section 3.25.x.x. While the Handbook of North American Indians was used to frame the discussion of Alaska Natives it was not the only source used. Input from Alaska Natives regarding traditional knowledge was welcomed throughout preparation of the EIS. In April 2002, this input was explicitly sought by a certified letter mailed to all 21 federally recognized Tribes examined in this EIS. To date, there has been no response to this letter. Discussions of the Eyak culture in the 21st century have been modified in the FEIS (see Sections 3.25.1.1.8 and D.2.3.4.2).

Subsistence is examined in the EIS in terms of three important roles: economic (in the sense of providing key resources, not in terms of monetary value), sociocultural, and ceremonial (Section 3.24). Although Section 3.23.5 estimates the monetary value of overall subsistence harvests in the state, this is provided solely for comparative purposes with state revenues and expenditures and in no way reflects the document's position on subsistence. The FEIS examines subsistence for all of Cordova (including the Native Village of Eyak), presenting data that indicate high participation and relatively high per capita harvests—indicative of the importance of this activity.

00131-006: The BLM recognizes that there may be interactions between the TAPS and subsistence resources. The BLM also notes that current information does not show a relationship between TAPS and subsistence impacts. The BLM and State of Alaska within JPO are currently working with industry and others to develop a science-based approach to determine how TAPS and subsistence resources interact.

00131-007: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00131-008: The reader is directed to the discussion of escrow funds found in Section 2.5.

00131-009: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00131-010: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent's office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00131-011: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

Responses for Document 00132

00132-001: The purpose of requesting public comments on a draft environmental impact statement is to obtain additional information that would improve the quality of the analysis in the document. In addition to holding a public hearing in Cordova for the purpose of receiving comments on this DEIS, five other ways were provided to submit comments within the 45-day comment period.

00132-002: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00132-003: Prince William Sound and Cordova have been covered in Chapters 3 and 4 of the FEIS.

00132-004: The EIS notes that subsistence is an important activity for many rural Alaskans and Alaska Natives, and that it fills economic, sociocultural, and ceremonial roles for the latter (see Section 3.24). Subsistence data presented in the EIS for Cordova in Tables 3.24-1, 3.24-2, and D-26 and discussions of subsistence in Cordova in Sections 3.24.2.4.2 and D.2.3.4.2 indicate that subsistence involves the great majority of households in that community.

00132-005: Thank you for your comment.

Responses for Document 00133

00133-001: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00133-002: Thank you for your comment.

00133-003: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00133-004: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00133-005: Routine surveillance of the pipeline includes identifying conditions of pipeline movement as noted in your comment. In addition, the monitoring system includes monitoring for seismic events and activating alarms within the VMT control center when seismic events could threaten the pipeline integrity so that shutdown could be initiated, if warranted. It is important to note, however, that pipeline shifting along the width of each horizontal support member was anticipated because of such factors as thermal expansion and contraction, as well as the movements related to start-up or shut-down activities. The November 3rd earth quake provided a lesson on the durability of the TAPS design.

00133-006: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00133-007: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00133-008: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent's office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

Responses for Document 00134

00134-001: Significant effort was made to advise people of the schedule and duration for the public review of the DEIS well in advance (one year). The purpose of requesting public comments on a DEIS is to obtain additional information that would improve the quality of the analysis in the document. In addition to holding a public hearing in Cordova for the purpose of receiving comments on the DEIS, five other ways were provided to submit comments within the 45-day comment period. The meeting room at the Moose Lodge in Cordova is provided with universal access via a ramp to the rear entrance.

00134-002: Please see Section 4.3.2 of the FEIS (Soils and Permafrost) for impacts related to slope stability and liquefaction.

00134-003: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00134-004: Depending upon the timing and the quantity of oil, it is true that major impacts could occur to salmon in the Copper River if a large amount of oil from a pipeline break were to reach the Copper River. Spills into the Gulkana and the Tazlina Rivers (both tributaries of the Copper that are crossed by the TAPS) were considered as part of the spill scenario analyses in Section 4.4.4.10.1. Text has been added to Section 4.4.4.10.1 to reiterate the importance of the Copper and Lowe Rivers for salmon production in the area and to recognize the potentially severe impacts to salmon in the event of a large spill entering those rivers.

00134-005: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00134-006: The reader is directed to the discussion of escrow funds found in Section 2.5.

00134-007: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00134-008: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00134-009: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent’s office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00134-010: The purpose of requesting public comments on a DEIS is to obtain additional information that would improve the quality of the analysis in the document. In addition to holding public hearings in Alaska for the purpose of receiving comments on the DEIS, five other ways were provided to submit comments within the 45-day comment period. Comments were received from many people outside Alaska.

00134-011: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

Responses for Document 00135

00135-001: There has been significant national interest in the proposal to renew the TAPS right-of-way. Several ways to submit comments were provided, and those received during the scoping period and on the DEIS came from many locations outside Alaska.

00135-002: Thank you for your comment.

00135-003: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00135-004: The purpose of requesting public comments on a DEIS is to obtain additional information that would improve the quality of the analysis in the document. In addition to holding public hearings in Alaska for the purpose of receiving comments on the DEIS, five other ways were provided to submit comments within the 45-day comment period. Comments on the DEIS were received from many locations outside Alaska.

00135-005: Thank you for your comment.

00135-006: Thank you for your comment.

Responses for Document 00136

00136-001: Additional information about the fate and effects of aqueous phase oil has also been added to the discussion of impacts from spilled oil in Section 4.4.4.10. PAH accumulation was detected in mussels used to monitor water quality in Port Valdez as part of a PWS RCAC-sponsored monitoring program (Salazar et al. 2002). In that study, it was found that all measured concentrations of PAHs in water and estimated on the basis of bioaccumulation in mussel tissues indicated that the concentrations of PAHs in Port Valdez waters are in the low parts-per-trillion range, well below the levels that have been associated with adverse effects in herring and salmon embryos (Salazar et al. 2002). In addition, Salazar et al. (2002) did not detect reductions in overall growth of caged mussels that could be attributed to PAH burdens.

00136-002: As a large-scale engineering project, it is impossible to guarantee that something will not go wrong and some oil will not spill from equipment and the pipeline. However, what can be demanded is that the responsible organizations do everything that they can to prevent it and, if it occurs, to respond to a potential spill to minimize its impacts to the environment. The Joint Pipeline Office (JPO) oil-spill planning and prevention program is a large-scale, multi-agency endeavor, designed to accomplish that goal. Each of four participating agencies (Alaska Department of Environmental Conservation (ADEC), Environmental Protection Agency (EPA), Bureau of Land Management (BLM), and Alaska Department of Natural Resources (ADNR)) has a particular focus; however, their individual objectives are considered collectively in the JPO TAPS oil spill response and planning group. This interagency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil-spill planning and related issues.

The emphasis of the four agencies is the prevention of spills. Spill prevention is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises conducted on TAPS annually) and 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, the JPO has a number of highly trained individuals who are fully prepared to respond quickly and effectively.

The TAPS Pipeline Oil Discharge Prevention and Contingency Plan (APSC 2001g) provides for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline.

00136-003: Thank you for your comment.

00136-004: Thank you for your comment.

00136-005: Thank you for your comment.

00136-006: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00136-007: Text has been added to Section 4.4.4.10.1 to reiterate the importance of the Copper and Lowe Rivers for salmon production and to recognize the potentially severe impacts to salmon in the event of a large spill entering those rivers.

00136-008: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

Responses for Document 00137

00137-001: Sections 3.24.2.4.2 and D.2.3.4.2 discuss subsistence in Cordova, while Tables 3.24-1, 3.24-2, and D-26 present subsistence data for Cordova. Both the text and the tables convey that the vast majority of households in Cordova are involved in harvesting subsistence resources, and even more use subsistence resources. The data presented indicate that relatively large amounts of subsistence resources, coming from a wide variety of species, are harvested. The DEIS does not state or otherwise imply that subsistence is unimportant in Cordova, and none of the data presented would lead to this conclusion. The statement in the DEIS regarding wages in the Cordova economy (which is entirely consistent with data collected in the 2000 census) is not an indication that subsistence is unimportant.

00137-002: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00137-003: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00137-004: Significant effort was made to advise people of the schedule and duration for the public review of the DEIS well in advance (one year). The purpose of requesting public comments on a DEIS is to obtain additional information that would improve the quality of the analysis in the document. In addition to holding a public hearing in Cordova for the purpose of receiving comments on the DEIS, five other ways were provided to submit comments within the 45-day comment period.

Villages, Tribal governments, and Native groups were provided opportunities to participate in the comment process through government-to-government consultation. As a result, meetings were held in villages, including the Native Village of Eyak, during the scoping period, prior to and during the public comment period, and continuing throughout the TAPS renewal decision-making process.

Also see the revised Section 5.3, which addresses government-to-government issues.

00137-005: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00137-006: Section 3.24, which characterizes subsistence in Alaska, notes the important role of exchange of subsistence resources to Alaska Native sociocultural systems. Tables of subsistence harvests presented in Appendix D include a column on the percentage of households using subsistence resources, as opposed to harvesting the resources themselves, to convey that subsistence is important beyond the individuals who actually do the hunting, fishing, trapping, or collecting. Table D-26 contains the most recently collected systematic subsistence harvest data for Cordova, with the high level of use of fish (as a case in point) noted in the accompanying text in Section D.2.3.4.2. The text has been changed to discuss sharing patterns, as shown in the tabular data.

00137-007: This EIS does not consider an oil spill due to a tanker accident to be related directly to the TAPS, but rather as an associated event that would be covered under cumulative impacts (see Section 4.7). Section 4.7.8.1 has been modified to discuss impacts of the Exxon Valdez oil spill on subsistence in Prince William Sound, and Section 4.7.8.2 has been changed to discuss more thoroughly the sociocultural impacts of this spill. In both of those sections, revisions discuss potential impacts of a large tanker spill to subsistence and sociocultural systems in greater detail.

Section 4.7.8.3 has been expanded to include additional sources information on the economic impacts of the Exxon Valdez spill on fisheries resources, recreation and tourism, and the psychological impacts of the spill in the local communities in the vicinity of Prince William Sound.

Responses for Document 00138

00138-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00138-002: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00138-003: The reader is directed to Section 2.5, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00138-004: The reader is directed to Section 4.8.4.

00138-005: The importance of the Copper River as a staging area for migratory shorebirds and other species is presented in Section 3.20.3. Please refer to the text box in Section 4.4.4.3 for a discussion on oil spill prevention and response capabilities and related activities specific to the Copper River Drainage area.

00138-006: References and discussion pertaining to effects of oil on fish and invertebrates are presented in Sections 3.19, 4.3.16, 4.4.4.10, and 4.7.7.2. Section 3.19.1.3 also includes information about the status of fish populations potentially affected by EVOS and identifies that while some species appear to have recovered, herring have not.

00138-007: Additional discussion has been added to Section 4.7, "Cumulative Impacts," concerning the impacts of oil transportation in the Gulf of Alaska.

Responses for Document 00139

00139-001: A discussion on the impacts to two tributaries of the Copper River (Gulkana and Tazlina Rivers) is presented in Section 4.4.4.3. Additional details on the Copper River Drainage are given in the text box in Section 4.4.4.3, "Oil Spill Planning for the Copper River Drainage."

00139-002: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00139-003: Thank you for your comment.

00139-004: Thank you for your comment.

00139-005: Thank you for your comment.

Responses for Document 00140

00140-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00140-002: Membership on the BLM Alaska Resource Advisory Council changes regularly. Tribal representation is included.

00140-003: The text in the FEIS has been changed to reflect the fact that many subsistence activities have cultural significance to Alaska Natives, are not necessarily replaced by greater participation in the market economy as personal income increases in Alaska Native communities, and that decreases in income do not necessarily affect the productivity of subsistence activities.

00140-004: We believe that the EIS fairly presents the status of the debate over ongoing impacts of the Exxon Valdez oil spill on fish populations in Prince William Sound. Additional references and discussion have been added to Section 3.19.1.3.

00140-005: As discussed in the impact sections dealing with environmental justice (Sections 4.3.25, 4.4.4.19, 4.5.2.25, 4.6.2.25, and 4.7.8.7), subsistence impacts are considered under environmental justice.

00140-006: Subsistence is defined at the beginning of Section 3.24. Included in that definition is the range of resources that subsistence activities provide, and the three main roles that subsistence by Alaska Natives plays: economic (in the sense of providing resources), socio-cultural, and ceremonial. The statement cited in the comment has been modified to refer to “flexible and strategic” behaviors, and is intended to convey the idea that specific subsistence activities change in response to a number of factors such as resource availability.

00140-007: Map data on subsistence harvest areas for Cordova have not been published, but have been added to the FEIS to supplement the other two documented for Prince William Sound. Section 4.7.8.1, which deals with cumulative impacts of subsistence, has been expanded to discuss impacts of the Exxon Valdez oil spill on subsistence in Prince William Sound (which the DEIS never alleged were small) and to provide a clearer statement of possible tanker spill impacts.

00140-008: The DEIS sections on subsistence received many critical public comments and, as a result, have received substantial revision. A small number of additional sources were identified, including the map of Cordova subsistence areas and North Slope studies of impacts on subsistence economies from oil development. Previous sources were considered more closely, as when time-series data were derived from the ADF&G Division of Subsistence studies, and harvest permit data were disaggregated to distinguish patterns of rural and nonrural residents. The contribution of Tribal members in existing research and the value of Tribal partners as co-investigators in future subsistence research are acknowledged. However, with additional analysis of these data, the EIS draws reasonable conclusions on the basis of existing information.

00140-009: Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments," requires that the federal government consult with Tribal governments during the preparation of an EIS. As the lead federal agency associated with this EIS, the BLM established government-to-government exchanges with all Tribal governments in Alaska and more focused exchanges with 21 Tribes directly affected by the TAPS. These 21 communities received more detailed mailings explaining the proposed ROW renewal, the EIS process, and the various sources of additional information. Meetings were held with all Tribal organizations and Native groups that requested them to discuss the EIS process and related issues in greater detail. At the meetings, specific emphasis was placed on how Tribal organizations and Native groups could participate effectively in the EIS and ROW renewal processes. Section 5.3 was rewritten to clarify the extensive government-to-government consultation process BLM used. While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native groups. The process of government-to-government consultation allows these organizations to continue dialogue with the Bureau of Land Management and for their comments to be considered in the Record of Decision. The BLM and member agencies of the JPO are committed to ongoing government-to-government consultations and welcome invitations to participate in meetings and dialogue with Native Tribes.

00140-010: Section 3.25 has been expanded to discuss federally recognized Tribes and their role in modern Alaska Native sociocultural systems.

00140-011: The Bureau of Land Management is the lead federal agency for the preparation of this EIS and has consulted with affected Tribal and Native organizations throughout the TAPS ROW renewal and EIS processes. See Section 5.3 in the FEIS. A public scoping period at the beginning of work on the EIS produced useful comments from throughout Alaska and most other states.

Regardless of the assistance provided in the preparation and review of the EIS, the BLM is responsible for its content.

00140-012: The discussion of the EVOS is included in the document as background and to describe the environment that could potentially be affected by future pipeline operations. It is not meant to be an exhaustive treatment and does not attempt to list or quantify the impacts caused by the EVOS.

The studies referred to come from refereed academic journals. Section 3.11.3 also presents the work of other researchers on the issue of background hydrocarbon levels in PWS.

GREATER ★ FAIRBANKS
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CTG Alaska
Denali State Bank
Design Alaska
Fairbanks Building & Construction Trades Council "The Unions"
Fairbanks Natural Gas, LLC
Fairbanks Urgent Care Center
First National Bank Alaska
Flowline Alaska
Fort Knox Mine
Golden Heart Utilities
Golden Valley Electric Association
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North Star Computing
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Third Sector Technologies, Inc.
Totem Ocean Trailer Express
Usibelli Coal Mine
WebWeavers
Wells Fargo Bank Alaska
Wendy's
Westmark Fairbanks Hotel & Conference Center

August 13, 2002

Mr. Jerry Brossia, Authorized Officer
BLM - Joint Pipeline Office
411 West 4th Ave., Suite 2
Anchorage, AK 99501

Subject: Resolution No.: 02-729 Supporting the Draft Environmental Impact Statement for the Trans Alaska Pipeline Right-of-Way Renewal

Dear Brossia,

Enclosed is a copy of the recent Resolution passed by the Greater Fairbanks Chamber of Commerce Board of Directors on July 29, 2002.

If you have any questions regarding this resolution, please contact either Buzz or myself.

Sincerely,

Kara Moriarty

Kara Moriarty
President/CEO

cc: Representative John Davies
Representative Joe L. Hayes
Representative John B. Coghill, Jr.
Representative Bud Fate
Representative Jeannette James
Representative Jim Whitaker
Senator Pete Kelly
Senator Gene Therriault
Senator Gary Wilken
U.S. Senator Ted Stevens
U. S. Senator Frank Murkowski
Congressman Don Young
Governor Tony Knowles
Secretary Gale Norton, Dept. of the Interior
Resource Development Council

FAXED

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CHAMBER
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CellularOne
CTG Alaska
Denali State Bank
Design Alaska
Fairbanks Building & Construction Trades Council "The Unions"
Fairbanks Natural Gas, LLC
Fairbanks Urgent Care Center
First National Bank Alaska
Flowline Alaska
Fort Knox Mine
Golden Heart Utilities
Golden Valley Electric Association
Key Bank of Alaska
Mt. McKinley Bank
North Star Computing
Northrim Bank
Phillips Alaska, Inc.
Santina's Flowers & Gifts
Tanana Valley Clinic
Third Sector Technologies, Inc.
Totem Ocean Trailer Express
Usibelli Coal Mine
WebWeavers
Wells Fargo Bank Alaska
Wendy's
Westmark Fairbanks Hotel & Conference Center
Williams Alaska

Introduced By: Board of Directors
Date Introduced: July 8, 2002
Date Passed: July 29, 2002
Date Transmitted: August 2, 2002

RESOLUTION 02-0729

A RESOLUTION BY THE GREATER FAIRBANKS CHAMBER OF COMMERCE SUPPORTING THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE TRANS ALASKA PIPELINE SYSTEM RIGHT-OF-WAY RENEWAL

WHEREAS the Trans Alaska Pipeline System (TAPS) was granted a 30-year right of way in 1977 by both federal and state agencies; and

WHEREAS since the current right-of-way leases expire in May 2004, the six companies that own TAPS filed state and federal applications to renew the pipeline's right-of-way for another 30 years; and

WHEREAS the right-of-way renewal process requires a full Environmental Impact Statement (EIS) examining impacts on the physical environment, biological resources, and social systems; and

WHEREAS the Trans Alaska Pipeline System has transported over 13 billion barrels of oil from the North Slope to tankers in the Port of Valdez since its beginning; and

WHEREAS the production forecasts for the next 30 years indicate North Slope production to be an estimate 8.9 billion barrels of crude oil, at a value of $374 billion; and

WHEREAS approximately 1 million barrels of oil are transported through TAPS every day, representing approximately 17 percent of the United States' crude oil production; and

WHEREAS petroleum industry spending generates revenue of more than $250 million dollars a year for the Fairbanks economy; and

WHEREAS the pipeline has been operated safely, efficiently, and reliably, with a reliability rating of over 90% for over 20 years; and

WHEREAS the current federal grant and state lease expire in 2004 and the applications, submitted to the Alaska Department of Natural Resources and the U.S. Bureau of Land Management, seek to extend the grant and lease for pipeline operations to 2034; and

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CHAMBER
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Alyeska Pipeline Service Company
AT&T Alascom
BP Exploration (Alaska) Inc.
CellularOne
CTG Alaska
Denali State Bank
Design Alaska
Fairbanks Building & Construction Trades Council "The Unions"
Fairbanks Natural Gas, LLC
Fairbanks Urgent Care Center
First National Bank Alaska
Flowline Alaska
Fort Knox Mine
Golden Heart Utilities
Golden Valley Electric Association
Key Bank of Alaska
Mt. McKinley Bank
North Star Computing
Northrim Bank
Phillips Alaska, Inc.
Santina's Flowers & Gifts
Tanana Valley Clinic
Third Sector Technologies, Inc.
Totem Ocean Trailer Express
Usibelli Coal Mine
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Wells Fargo Bank Alaska
Wendy's
Westmark Fairbanks Hotel & Conference Center

WHEREAS negative economic consequences would occur if the lease was granted for a shorter period of time, such as increased financing and bonding costs, a decrease in future investment and exploration on the North Slope, and reducing the flow of funds into federal, state, and local governments; and

WHEREAS the current Joint Pipeline Office consisting of 13 state and federal agencies provide sufficient oversight of TAPS, thus negating the need for any additional oversight; and

WHEREAS a shorter lease period and additional oversight would have a significant impact on the cost of doing business for TAPS, thus reducing productivity and profitability.

NOW THEREFORE BE IT RESOLVED that the Greater Fairbanks Chamber of Commerce fully supports the Draft Environmental Impact Statement for the Trans Alaska Pipeline System (TAPS) right-of-way renewal for another 30 years without additional requirements or oversight.

141-1

BE IT FURTHER RESOLVED that this resolution be distributed to:

Alyeska Pipeline Service Company
Amerada Hess
BP Pipelines
Exxon-Mobil
Phillips Transportation
Unocal Pipeline Company
Williams Energy Services
U.S. Bureau of Land Management
Alaska Department of Natural Resources
Governor Tony Knowles
Secretary Gale Norton, Department of the Interior
Senator Ted Stevens
Resource Development Council
Senator Frank Murkowski
Congressman Don Young

PASSED in Fairbanks, Alaska this 29th day of July, 2002 by the Greater Fairbanks Chamber of Commerce Board of Directors.

Buzz Otis
Board Chair

Kara Moriarty
President/CEO

2

R02-0729 (8/02/02)

Responses for Document 00141

00141-001: Thank you for your comment.

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

1255 W. 8th Street
Juneau, AK 99802-5526
PHONE: (907) 465-4100
FAX: (907) 465-2332

DEPARTMENT OF FISH AND GAME

Office of the Commissioner

MEMORANDUM

TO: John Kerrigan, State Pipeline Coordinator
Joint Pipeline Office
Department of Natural Resources

FROM: Frank Rue, Commissioner
Department of Fish and Game

RECEIVED
AUG 20 2002
JOINT PIPELINE OFFICE

DATE: August 19, 2002

SUBJECT: Renewal of the Trans-Alaska Pipeline Right-of-Way Lease and Proposed Land Classification and Mineral Closing Order

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The Alaska Department of Fish and Game (ADF&G) has reviewed the "Commissioner's Statement of Reasons and Proposed Written Determination for Renewal of the Trans-Alaska Pipeline Right-of-Way (ROW) Lease" and the "Proposed Land Classification and Mineral Closing Order Site Specific Plan for Land North and South of Happy Valley and Coldfoot."

Renewal of the Trans-Alaska Pipeline ROW Lease

Renewal Requirements: Alaska Statute (AS) 38.35.110 provides that the Lease shall be renewable if the Lessee is: 1) in commercial operation; 2) in full compliance with all state laws; and 3) in compliance with all terms of the lease. For the purpose of this review, ADF&G focused on compliance with Title 16 permitting and lease sections and stipulations that are intrinsic to the requirements in AS 16.05.840, AS 16.05.870, and 5 AAC 95, which are administered by the department's Habitat and Restoration Division.

The ADF&G Liaison to the Joint Pipeline Office administers the Title 16 permitting process for TAPS construction and maintenance activities in fish streams, provides the Federal Authorized Officer and State Pipeline Coordinator technical guidance on biological issues associated with Lease and Grant stipulations, and coordinates ADF&G review and comment for oil spill contingency plans, ACMP consistency reviews, and other large scale projects. To verify compliance with Title 16 and 5 AAC 95, the ADF&G Liaison conducted field inspections, reviewed Alyeska's Internal Environmental Program, and evaluated Alyeska's compliance with

ROW 8/20/02

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Title 16, 5 AAC 95, State ROW Lease Stipulation 2.5 (Fish and Wildlife), Stipulation 2.12 (Restoration), and Stipulation 2.2 (Pollution Control) over the recent five-year period. The results of these compliance activities are reported in JPO Assessments No.: ANC-01-A-011, ANC-01-A-015, and ANC-02-A-003. In summary, the ADF&G determined that there are no outstanding (or open) "findings" associated with Title 16, 5 AAC 95 or Stipulations 2.5, 2.12, or 2.2 of the lease. Therefore, we concur with the Commissioner's Determination that the Lessee is in compliance with state laws administered by the ADF&G. 142-1

Proposed Land Classification and Mineral Closing Order Site Specific Plan for Land North and South of Happy Valley and Coldfoot

The Department of Natural Resources proposes to classify 105,750 acres of state land, located north and south of Happy Valley and Coldfoot, as 29,272 acres for Resource Management, 69,916 acres for Transportation Corridor, and 6,580 acres for Settlement. In addition, about 17,460 acres will be closed to new mineral entry, under a Mineral Closing Order.

The plan area supports a diversity of fish and wildlife species. Approximately 168 species of birds, 16 species of freshwater and anadromous fish, and 38 species of terrestrial mammals inhabit the area. This diversity of fish and wildlife reflects the variety of habitats found within the planning area, which is accurately identified in the plan. There are two large river systems within the planning area that have been specified as being important for the spawning, rearing, or migration of anadromous fish pursuant to AS 16.05.870(a). The Sagavanirktok River supports a large run of anadromous Arctic char, and smaller runs of broad whitefish, humpback whitefish, pink salmon, and chum salmon. The river is also inhabited by resident Arctic grayling, lake trout, round whitefish, least cisco, burbot, ninespine stickleback, and slimy sculpin. The Koyukuk River supports chinook and chum salmon, sheefish and whitefish, and resident fish species such as Arctic grayling, Dolly Varden, longnose suckers, burbot, ninespine stickleback, and slimy sculpin. Sport hunting and fishing, subsistence use and recreational use in the area has been limited because of statutory restrictions within five miles of the Dalton Highway, existing authorized uses and development, and the area's inaccessibility and lack of facilities.

ADF&G understands that the entire planning area will be managed as a corridor for oil and gas transportation and related uses. The plan also identifies two development nodes. These nodes will be areas where public as well as private commercial facilities and development related to road traffic are located. The plan recognizes that impacts on fish and wildlife resources and habitats can be minimized by carefully managing the location of material sources, and the location, construction and maintenance of pipelines and attendant facilities. Early involvement of ADF&G in the planning process when locating these facilities is key to implementation of land use plans that successfully avoid and/or minimize habitat loss.

The most significant element of the plan is accommodating the changing nature of the Dalton Highway from principally industrial use to one open to the public. With an anticipated increase

in public use of the highway, land managers can also anticipate an increase in recreational activities or use in the area. Land adjacent to the northern portion of the planning area is state land, while the Gates of the Arctic National Park and Preserve and the Arctic National Wildlife Refuge adjoin the southern portion. Access to the adjoining areas outside of the five-mile Dalton Highway corridor is limited. It would be prudent, therefore, to protect fish and wildlife resources and habitats and ensure future access and recreational opportunities by protecting river and trail corridors. To this end, ADF&G recommends incorporating buffers, easements, and setbacks into the plan.

Specifically, ADF&G recommends that:

- all land within 200 feet of the ordinary high water (OHW) line of the Sagavanirktok and Koyukuk Rivers be retained in state ownership, and that reasonable access easements to these rivers are dedicated within the plan area.
- a publicly owned corridor with a minimum width of 100 feet (50 feet either side of centerline) be established for the winter trails in Sections 6 & 7, T. 1 N., R. 15 E., U.M., and Sections 1, 11-14, 17-19, 29, 30, 32 & 33, T. 1 N., R. 14 E., U.M.
- the plan include a standard minimum structural setback from all streams at 100 feet from OHW for all lands classified "Settlement" (T. 29&28 N., R. 12 W., F.M.).

ADF&G appreciates the opportunity to provide comment on the proposed land classification. If you have any questions or would like additional information, please contact Dennis Gnath at 257-1307. Please provide Dennis with plan changes or other related documents as they become available.

cc: J. Brossia, JPO/BLM AO
T. Braden, JPO/DNR ROW Chief
M. Thompson, JPO/DNR ROW Renewal Coord.
Chip Dennerlein, ADF&G
E. Fritts, ADF&G
A. Ott, ADF&G
L. Trasky, ADF&G

Responses for Document 00142

00142-001: Thank you for your comment.

RECEIVED
JOINT PIPELINE OFFICE
02 AUG 21 PM 1:21

August 20, 2002

BLM TAPS Renewal EIS
Argonne National Lab EAD/900
9700 S. Cass Ave.
Argonne, IL 60439
tapswebmaster@anl.gov

State of Alaska, DNR/JPO
Attn: TAPS Renewal Team
411 West 4th Ave., Suite 2C
Anchorage, AK 99501
ADNR_Administrative_Record@jpo.doi.gov

Re: Comments on Application of the Trans-Alaska Pipeline System Owners for Renewal of the Federal Grant and State Lease for the TAPS Right-of-Way

My name is Debi Olzenak. I have lived in Alaska for the past 13 years and and recently moved permanently to Cordova. Since my move to Alaska 13 years ago, I have always used subsistence caught fish to feed my family through out the year. My three boys work with my husband and I to catch, clean and process the fish we eat. This have become a family tradition that has encouraged team work and pride in the family system, working together as well as supplementing our food bill.

My community is still reeling from the aftershocks of the *Exxon Valdez* oil spill 13 years ago. I moved to Cordova because it is a small, road less community that provides us with security and solitude we can not get in other communities especially in the lower 48. Cordova is a Commercial fishing community. Cordova is slowly disintegrating and becoming oppressed, and unable to survive without our primary industry, fishing. Even tourism, our secondary industry is suffering. We went from fishing permits selling for $100000.00 or more to $5000.00 or less today. We have gone from 10 charter businesses just a couple years ago to just 4 this year.

I am very concerned that the next major spill will be along the overland portion of TAPS. The risk is high for my community--20% of the 800-mile pipeline is within the Copper River watershed and the main pipeline crosses 76 tributaries of the Copper. While spill prevention and response measures have improved significantly since the 1989 spill--almost all due to citizen oversight and pressure, most of those changes are at the Valdez terminal and in Prince William Sound. On the pipeline, reliable spill prevention and response measures still do not exist. The problem is particularly acute at river crossings. TAPS crosses 800 streams and sections of pipeline over rivers have reached design capacity for sag--there is nothing left to give. This seems like an accident waiting to happen. 143-1

My comments are based on my experience living in a community that the oil company and government representatives visited in the early 1970s and promised there wouldn't be an oil spill in Prince William Sound. The oil companies made many other promises such as tankers would have double hulls and we would have a state-of-the-art traffic control system in the Sound. Had these promises been kept, we might not have had the *Exxon Valdez* oil spill. 143-2

Some, but not all, of the oil companies' promises were stated as a set of conditions and stipulations in the original agreements and right-of-way grants. The Interior Department and its designees were assigned the job of ensuring those promises to the American people were kept. Even a brief review of history shows that many of these promises were broken and that the companies were allowed to operate for literally years in noncompliance with their federal grant and state lease. 143-3

For example, the ballast water treatment (BWT) facility at the tanker terminal has not been reviewed at least once every 5 years to ensure state-of-the-art equipment and technology as promised the federal grant and state lease. 143-4 Some improvements at the BWT facility occurred only recently and through citizen involvement and oversight. The vapor recovery system at the tanker terminal didn't work for decades--since startup until 1998 when vapor controls were built into two of the four berthing docks. When it didn't work it dumped literally tons of benzene into the air and jeopardized public and worker health and safety in violation of the federal grant, state lease, and operating permits. 143-5 In 1993, concerned industry employees testified in Congress that the quality control program was nonexistent--since startup--and, as a result, the entire TAPS had been so poorly maintained that it posed an imminent threat to the public, workers, and the environment. 143-6 Subsequent audits validated the whistleblowers' concerns. Operating without an independent quality control program is in direct violation of the federal grant and state lease.

More recent examples occurred after the *Exxon Valdez* oil spill. Still now over 13 years later, most of the species studied by the Trustee Council have not recovered from the spill. Yet the federal grant and state lease promise that damages to public lands will be promptly repaired or replaced and that damages to public fish and wildlife resources, and their habitat, will be rehabilitated. This has not happened. 143-7

The oil companies also promised in stipulations attached to the federal grant and state lease to "take all measures necessary to protect the health and safety of all persons affected by their activities..." (Stipulation 1.20.1). I believe this promise includes taking care of residents and cleanup workers after a spill. Yet, after the *Exxon Valdez* spill, Tatitlek villagers observed that Exxon was willing to spend $800,000 on each sea otter for rehabilitation, but nothing or very little on mental health care for people traumatized by the spill. 143-8 Further, thousands of cleanup workers got sick during 1989, despite Exxon's worker safety program. I am just learning that hundreds of people may

still be sick from overexposure to oil vapors, fumes, and aerosols during the cleanup. All the oil companies promised to "immediately abate any health or safety hazards" (Stipulation 1.20.1): it seems all the companies, not just the spiller, are responsible to ensure that people don't get sick during the cleanup--and to take care of the ones who do as per the original promise. 143-8 (Cont.)

I think that the oil companies are now currently in noncompliance with the federal grant and state lease. For example, the fire-fighting ability at the tanker terminal is virtually nonexistent. Oily sludge (hazardous waste) has collected several feet deep in tanks at the BWT facility--and the sludge incinerator was never built as per the original facility design. There is still no independent quality assurance program. The contingency plans for river spills are grossly inadequate--drills show the plans won't work to contain and cleanup oil spilled into rivers. I'm sure this list is incomplete and pipeline regulators could add to it if they were to seriously look for problems and not just respond to ones brought to their attention by citizens or concerned employees. 143-9

In light of these past and still ongoing problems, I strongly disagree with statements made by both the state and federal regulators in the draft EIS documents. The Alaska Department of Natural Resources found the oil companies to be in compliance with the state lease. This determination is obviously a requirement for reauthorization as it has nothing to do with reality. 143-10

Federal and state regulatory agencies also stated that the aging 800-mile pipeline and its support systems that were originally built to last 30 years *"can be sustained for an unlimited duration"* with minimal costs and change in the operating and maintenance procedures. This statement demonstrates a lack of credibility--and no grasp of reality. The recent spate of accidents including the failed response to the Livengood bullet hole spill, and the 21-inch shift in a section of pipeline that went undetected for several months show that both industry and the regulators are ill-prepared for serious problems along the overland section of TAPS. The 3 spills at pump stations on pipeline startup after routine maintenance last fall clearly demonstrate this pipeline is aging and not aging well as frequent spills on startup are one sign of increasing problems that should be anticipated--not ignored--in an aging pipeline. 143-11

I was further shocked and offended by the following statement in the draft EIS. "While the *Exxon Valdez* oil spill was a significant event in the operation of TAPS, creating significant benefits to the state and local economy that more than offset the economic damage to the fishing and tourism industries in Prince William Sound, it is unlikely that a spill of such magnitude, even if it occurred again would create the same level of economic activity" (DEIS, page 4-7-116). 143-12

This offensive statement clearly shows that the government regulators have a completely different perspective of their job of pipeline oversight than we were all lead

to believe by the federal grant and state lease. The original right-of-way documents do not mention that economics of spill cleanup would be weighed against economic damages to the few communities at risk. Instead the oil companies promised to protect, repair, replace, rehabilitate, etc. fish and wildlife resources, and their habitat--and the regulators are supposed to hold the companies to this promise. Specifically, the companies also promised to protect subsistence resources, lands, and users, which have a zero dollar economy and can't be compared to economics of spill cleanups at all. 143-12 (Cont.)

Oil spills are expensive to clean up--I'm sorry that I can't see this as good for the economy, but that's really irrelevant. Even if there was zero economy as measured by exchange of dollars, the oil companies are authorized to operate only if they take steps to minimize risk of oil spills and damage from spills. It's the government regulators' job to see the oil companies are held to this standard--the statement in the draft EIS seems to indicate that the regulators are not doing their job and are out of compliance themselves with the federal grant and state lease.

Finally, I must state that I feel this 45-day public comment period for a project of such national and state significance is counterproductive at best and a sham at worst. I did not have time to thoughtfully review the 1,700 page draft EIS because I have been busy trying to earn a living and put up winter food in Alaska's short summer. It appears from statements in the draft EIS that the government regulators did not have time to thoughtfully review nearly 30-years of TAPS history and compare performance with promises, conditions, and stipulations in the federal grant and state lease. Why the rush on a project of such significance? Over a year ago, the Joint Pipeline Office stated that the comment period would run from July to September, but in keeping with 25 years of broken promises by TAPS operators and government regulators, the regulators have broken that promise too. 143-13

Despite all the obstacles for public testimony, I offer the following recommendations for improving TAPS operations for the next 30 years--and I believe all my comments are well within the scope of this National Environmental Policy Act hearing process. I can only support reauthorization for another 30 years if these recommendations are fully addressed and included in the next federal grant and state lease.

#1 Stiff meaningful penalties for failure to comply. 143-14

All the laws, regulations, stipulations, and oversight in the world are forever inadequate without meaningful penalties and enforcement. Monetary fines are dwarfed by enormous profits, and the regulators are certainly not going to shut down the oil flow as a penalty for noncompliance--the nation has become too dependent upon this energy source. The track record of the oil companies show that it has acted like a child

who knows it is never going to be disciplined. This was not what the American public was originally promised or led to believe would happen.

Some possibilities for meaningful penalties for noncompliance by the oil companies include requirements for: 1) reporting the circumstances of noncompliance to their shareholders in quarterly newsletters as the events unfold (not after the fact); 2) CEOs and other responsible officers of oil companies to conduct public service in the TAPS corridor communities most at risk from the consequences of the noncompliance; 3) accruing penalties with interest on a daily basis as long as the infraction occurs; and tying penalties in with the cost of the fixing the problem so that penalties are 10 times the money saved by failure to do the maintenance work in a timely manner. This latter would force owners to change perspective and view maintenance as a *cost savings* compared to prospective penalties. 143-14 (Cont.)

#2 Establish a TAPS Citizens' Oversight Group.

Following the *Exxon Valdez* tragedy in 1989, the State of Alaska created the Alaska Oil Spill Commission to investigate the root causes of the spill and recommend changes to the oversight system. One of the Commission's central findings was that institutional complacency, both in industry and government, was a root cause of the spill. The Commission found that citizens were essential to an effective oversight system because they bring urgency to protecting the resources they care about and depend upon for their livelihoods. Distant bureaucrats, despite their best efforts, do not share this local perspective. To prevent future complacency, and thereby prevent future disasters, the Commission recommended creation of citizens' advisory councils for the marine **and overland segments** of Alaska's oil transportation system. We only have citizen oversight of the marine portion of TAPS--the tankers and tanker terminal--and it has proven the wisdom of the Commission's finding. It is time to apply the lessons learned to the overland pipeline.

As a requirement of renewal, the grant and lease should establish a TAPS COG that would operate completely independently of government regulators and industry: incorporating government and industry into "citizen oversight" creates an oxymoron. The TAPS COG should make recommendations directly to the Department of Interior (DOI) and to the Department of Natural Resources (ADNR) or their designees. The COG should be funded through the DOI by the permittees as part of the cost of TAPS operations, and all members of the TAPS COG and their staff should be paid for their services. The COG contract should be negotiable on the same timeframe as the right-of-way permit; i.e., 30 years. 143-15

#3 Charge penalties if more than 10% of employees are afraid to speak out. 143-16

Industry employees are the public's front line of defense in reducing oil spills. The workers know what is wrong and how to fix it. They need to be allowed to do their jobs free of harassment and intimidation. All personnel--and particularly the quality control inspectors--need to be independent of pressure from Alyeska and its owners to provide the reliable comprehensive quality assurance program promised to the public. Such a program is critical to TAPS integrity as the pipeline ages, because increased maintenance costs will compete with oil company profits: workers need to be able to report maintenance problems without fear of reprisal. 143-16 (Cont.)

The nuclear regulatory industry closes facilities if more than 10% of plant employees are afraid to speak out because of reprisals, harassment and intimidation. A similar standard should be adopted for TAPS operations, with annual independent surveys of workers to determine work conditions. Instead of closing facilities, stiff penalties should be applied, and public service by company officials and reporting of noncompliance to shareholders required (see Rec. #1, above).

#4 ***Require independent, long-term epidemiology studies, and short- and long-term treatment of physical and mental health effects, for workers and affected residents after major TAPS spills.***

Oil spills were--and still are--an anticipated side effect of TAPS construction, operation, maintenance, and termination. That's why there are oil spill contingency plans; that's why the oil companies promised, as a condition of operating, to protect public and worker health and safety. But a promise is worth nothing without follow through: after the *Exxon Valdez* spill this promise was ignored. There was inadequate financial support to meet increased needs of mental health facilities in affected communities and short- and long-term physical health care needs of cleanup workers were unmet. This is simply unacceptable--and in noncompliance with permits.

TAPS owners should be required to pay for increased mental health care in the years during and immediately after a spill in <u>all</u> affected communities. This care should include focused peer listening circles to mitigate community-level emotional trauma. Since oil spill cleanups are considered a hazardous waste cleanup, long-term health care studies should be required as the health symptoms associated with crude oil exposure (long-term respiratory damage; disorders of the central nervous system, liver, kidney, blood, and skin; endocrine disruption; and immune suppression) could take years to manifest as physical health problems. Oil companies should also be required to provide chemical decontamination treatments for individuals with acute health symptoms from high body levels of crude oil and other substances present during the cleanup. Individuals who become disabled from overexposure to chemicals present during the 143-17

cleanup should be compensated by the oil companies, as should the estate of individuals who die from overexposure to chemicals present during the cleanup. 143-17 (Cont.)

#5 Require independent verification of spill volume as a condition of lease renewal.

Spill penalties for damages to natural resources such as fish, wildlife, public lands held in the public trust are based on the volume of oil spilled--as reported by the spiller. One way to reduce the risk of spills and resulting damage to the environment and worker and public health and safety--one of the promises of the original agreement and right-of-way leases--is to penalize TAPS owners, or responsible parties in the case of a TAPS tanker spill, for the correct amount of oil spilled. 143-18

For example, Exxon underreported how much oil it spilled. In an unpublished investigation on file at the Alaska Resources Library and Information Services, the State of Alaska found Exxon spilled about 35 million gallons. Exxon paid the American public one billion dollars for damage to public resources from a supposedly 11 million-gallon spill: by underreporting its spill by one-third, the company only paid for one-third of the damages and essentially saved itself two billion dollars.

Independent verification should be required as a new condition of lease renewal. Further, stipulation should specify that government regulators and citizen oversight councils, either separately or jointly, conduct the assessment and agree upon the volume spilled before spill penalties are assessed. 143-19

#6 Thoroughly review and update the original right-of-way grants and stipulations in light of past experience, current science, new technology, new laws, and public comments.

The federal grant and state lease are three decades old and no longer reflect current science, technological advances, and law changes. For example, global warming and melting permafrost threaten to make at least one-third of the 77,000 vertical support members of the TAPS unstable with potentially catastrophic effects on the pipeline. Studies from the *Exxon Valdez* spill show that oil is 1,000 times more toxic previously thought, and that it can cause long-term environmental damage. Federal laws are still based on outdated research from the 1970s and 1980s and are grossly under-protective of fish and wildlife. This makes the original promises to protect fish, wildlife, and habitat even more important as basically these promises mean the owners and TAPS regulators will take measures *beyond existing laws* in order to protect fish and wildlife, habitat, and other subsistence needs. 143-20

Further, the original grant and lease agreements were signed by some companies that no longer exist because of mergers and buyouts. I assume, but would like proof, that the new companies are signatories to the current right-of-way grants and leases. 143-21

#7 ***Grant and lease renewals should be made conditional on satisfactory completion--within 12 months of the renewal--of an independent field-based evaluation of the entire TAPS including hardware and management.***

In 1993 a series of independent and industry audits found TAPS was in an imminent state of collapse with several major system wide problems including hardware problems, technical issues, and management issues. 1994 was proclaimed to be the "year of fixes" by the Alyeska president at the time, but fixes proved elusive. For example, the highly touted fiber optics cable, which was supposed to replace the old communication system, didn't work as planned and was quietly shelved. 143-22

No one knows how many problems were actually fixed of those disclosed in 1993, or what new problems remain unfixed because there has not been any independent audits of the TAPS since 1993. This is not acceptable for a system that provides a significant portion of the nation's energy demands and the bulk of the state's operating revenues, and can wreak environmental, social, and economic havoc on Alaska's communities, residents, and federally recognized tribes.

#8 ***Grant and lease renewals should be made conditional on satisfactory completion of annual independent audits of TAPS operations and management and 5-year in-depth independent field-based evaluations of the entire TAPS, including hardware and management.*** 143-23

I am concerned that the recommended alternative--to renew the permits for another 30 years--is way to long for this particular pipeline: it is essentially double its design life. If reauthorization is granted, it should be made **conditional** upon satisfactory completion of independent audits every year with in-depth audits every 5 years as stated above. The Prince William Sound Regional Citizens' Advisory Council has to pass an annual audit and review of operations to be recertified. Nothing less should be expected for the entire TAPS, which has much more at stake than the advisory council!

#9 ***Immediately escrow TAPS DR&R funds and use interest to finance the TAPS COG and other measures to improve protections for environment, fish and wildlife, and worker and public health and safety.*** 143-24

Funds intended for future dismantling, restoration, and removal of the TAPS have been collected from TAPS oil companies and passed through to parent companies, resulting in enormous profits--and no pot of money for future DR&R. This is a breach of public trust--and yet another example of corporate irresponsibility and accounting fraud. Government regulators need to take immediate action to remedy this problem.

I want these funds to be escrowed now--**before any grant and lease renewals**--as a sign of good faith efforts and intention by oil companies and government regulators to the American public. The public was promised this once: we don't need to be promised it twice. Further, earnings from the funds can be pledged towards payment for fulfilling other stipulations under the original agreements--such as protecting the environment, public resources, and worker and public health and safety.

#10 Transfer of TAPS operations to single source with no North Slope production.

The oil company owners consistently cut costs on TAPS operations and maintenance to increase their profits. This dynamic has created an internal conflict of interest, essentially, between the owners and the public interest. While the oil company permittees promised in the right-of-way leases to take all 'reasonable' or 'appropriate and adequate' steps to protect the environment, fish and wildlife, and public and worker health and safety, these adjectives are relative when viewed from different perspectives. What seems reasonable to the oil companies, who measure the cost of prevention against their profits, may not seem reasonable to the public, especially those who measure the cost of spills against their livelihoods and health. The track record shows that the oil companies have profited handsomely at the public's expense.

By transferring the operation, maintenance, and termination of TAPS to a single source with no North Slope production, the internal conflict of interest is broken. This operator would take more 'reasonable' steps, from the public perspective, to reduce its liability from spills by attention to TAPS operations and maintenance. Performance bonds could be required for additional protection of the public interest. 143-25

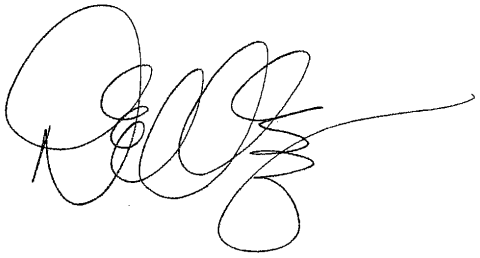
Summary of Concerns

We are going to have to get very creative to prevent a pipeline spill. We can't keep doing the same thing we have done in terms of TAPS operations and maintenance for the past 25 years. To continue past practices is to virtually guarantee a major spill in the TAPS corridor. 143-26

I ask that you give serious consideration to my comments. And I restate my position: I can only support TAPS reauthorization for another 30 years if these recommendations are fully addressed and included in the next federal grant and state lease.

Sincerely,

Debi Olzenak
PO Box 634
Cordova, AK 99574



Responses for Document 00143

00143-001: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

During 1990 and 1992 the JPO agencies worked with APSC to improve the pipeline contingency plan. Personnel response equipment and response training and exercise programs were added to the plan. Access to the pipeline was improved and the Incident Command System was adopted. All this was done without citizen oversight and pressure.

APSC's oil spill response capabilities and plans for TAPS are summarized in Section 4.1.4 of the EIS and explained in detail in the "TAPS Oil Discharge Prevention and Contingency Plan" (APSC 2001g) for the pipeline and in the "Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan" (APSC 2001h) for the VMT. The Plans provide for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline or at VMT. They are available to the public through various libraries in several major cities in Alaska when the plan is undergoing public review. Oil spill prevention and response capabilities and related activities specific to the Copper River Drainage area are discussed more fully in the text box in Section 4.4.4.3, "Oil Spill Planning for the Copper River Drainage."

00143-002: There is always a low probability that a very large tanker spill could occur during the ROW extension.

However, after the Exxon Valdez oil spill, numerous improvements have been made that will reduce the likelihood of a major marine transportation accident and/or the expected outflow in the event of an accident. They include improvements in spill prevention and response capability for the Prince William Sound (e.g., the creation of the Ship Escort Response Vessel System [SERVS]) and phase-in of double hull tankers (by 2015, all tankers calling at the VMT will have double hulls). The National Research Council (1998) has stated that double-hulls alone should reduce spills by more than 80%. These and other measures are intended to ensure that the future will not be like the past, in terms of marine transportation spills.

00143-003: The current Federal Grant and associated stipulations, along with the provisions of TAPAA, provide BLM with extensive and ongoing regulatory control of TAPS operations. These conditions would not change upon renewal.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00143-004: BLM has conducted the necessary 5-year review of the Ballast Water Treatment Plant (TAPS Engineering Report JPO No. 00-E-018).

00143-005: Prior to installation of the vapor control system, the estimated annual emission of benzene from the VMT was about 500 tons/yr. Current benzene emissions are about 50 tons/yr (see Table 3.13-6). Although VOC emissions prior to installation of the vapor control system were 10 times higher, the health risks associated with those emissions were evaluated in Sections 3.17. 2 and 4.3.13 of the EIS, and were found to be within EPA guideline levels.

00143-006: APSC substantially revised its quality control procedures after the 1993 testimony. APSC's quality control program undergoes review by the JPO under its comprehensive monitoring Program. See Section 4.1.3.1 of the FEIS.

00143-007: The federal action addressed in this EIS is renewal of the right-of-way for the TAPS. While renewal would result in continued operation of oil tankers in Prince William Sound, that activity is beyond the limits of the right-of-way corridor and is not under the jurisdiction of the BLM. Moreover, the BLM has no authority over oil spill cleanup and damage assessment within Prince William Sound. Regulation of activities associated with the transport of oil by tankers in Prince William Sound is under the jurisdiction of the U.S. Coast Guard and the U.S. Department of Transportation. Analysis of impacts to fish and wildlife in Prince William Sound is included in the EIS to provide a perspective within which the direct and indirect impacts of the proposed action and its alternatives are addressed.

The BLM and member agencies of the JPO enforce a number of stipulations that are protective of fish and wildlife resources within the right-of-way corridor. The EIS analysis did not find any significant impact to fish or wildlife resources associated with TAPS operations and maintenance within the right-of-way corridor.

00143-008: It is acknowledged in Section 4.4.4.7 of the FEIS that some former EVOS cleanup workers claim that oil and solvent exposures resulted in adverse health impacts, and that "out of 15,000 workers involved in the cleanup, 25 have filed suit for damages." However, it is beyond the scope of the EIS to determine whether the EVOS cleanup activities caused adverse health impacts in individual cleanup workers.

00143-009: The BLM and member agencies within the JPO utilize an adaptive management approach in the oversight of TAPS operations and maintenance. Adaptive management uses ongoing surveillance, monitoring and testing that provides Alyeska Pipeline Service Company and JPO with the data and information necessary to evaluate and change, if conditions warrant, the operations and maintenance of TAPS. Examples include:

- On-going oil spill contingency planning (tri-annual) and response capability reviews (annual),
- Field surveys of stipulation requirements, such as fish passage inspections,
- Comprehensive Monitoring Reports (12 published since 1996),
- Issues raised by the public (e.g., the Thompson Pass slack line and the Valdez tugs) and by the APSC workforce (e.g., electrical),
- Inspections by the State Fire Marshal as part of the JPO, and
- Routine surveillance that is outside of formal audits.

In addition, the BLM and member agencies of JPO in close cooperation with Alyeska Pipeline Services Company have begun a systematic process to identify the critical functional components of TAPS. The process, called reliability centered maintenance (RCM), is an on-going system-by-system audit that determines function, failure modes, consequence and preventative maintenance of critical systems. The BLM is committed to RCM and believes that this process represents a pro-active approach to oversight and regulation of TAPS. In addition, RCM is the industry standard for reducing risk of failure to critical system components. Reducing risk in TAPS critical systems directly translates to reducing safety and environmental risks.

00143-010: The current Federal Grant and associated stipulations, along with the provisions of TAPAA, provide BLM with extensive and ongoing regulatory control of TAPS operations. These conditions would not change upon renewal.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00143-011: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00143-012: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00143-013: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00143-014: The Bureau of Land Management (BLM) has no authority to require specific corporate reporting to the shareholders. The Securities and Exchange Commission has authority to compel the reporting of certain corporate activities to the public and shareholders. The BLM does not have the legal or regulatory authority to impose fines on the operator of TAPS.

00143-015: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00143-016: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent's office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00143-017: Section 4.4.4.7, "Human Health and Safety," provides a detailed analysis of the potential effects of oil spills on human health.

The BLM and member agencies of the JPO are committed to the protection of human health and the environment. The Federal Grant and authorizing legislation (TAPAA) provide unprecedented authority to BLM in assuring the protection of human health and the environment. Stipulations (the guiding conduct of operations for the operator of TAPS) within the Federal Grant contain numerous provisions that are protective of human health and the environment.

00143-018: The BLM and the member agencies of JPO investigate all significant spills to assess lessons learned and potential mitigation. There has been no evidence to date that past spill volumes have been reported inaccurately. If natural resource damage claims occur because of a spill, the U.S. Fish and Wildlife Agency or National Marine Fisheries Service conduct studies to evaluate damage to natural resources.

The BLM does not have the authority to fine the operator for oil spill damage, however, the DOI Secretary can impose fines up to $1000/barrel under OPA 90.

00143-019: The BLM and the member agencies of JPO investigate all significant spills to assess lessons learned and potential mitigation. There has been no evidence to date that past spill volumes have been reported inaccurately. If natural resource damage claims occur because of a spill, the U.S. Fish and Wildlife Agency or National Marine Fisheries Service conduct studies to evaluate damage to natural resources.

The BLM does not have the authority to fine the operator for oil spill damage, however, the DOI Secretary can impose fines up to $1000/barrel under OPA 90.

00143-020: The current Federal Grant and associated stipulations, along with the provisions of TAPAA, provide BLM with extensive and ongoing regulatory control of TAPS operations. These conditions would not change upon renewal.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00143-021: The current Federal Grant and associated stipulations, along with the provisions of TAPAA, provide BLM with extensive and ongoing regulatory control of TAPS operations. These conditions would not change upon renewal.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00143-022: See Section 2 for a discussion of alternatives. Section 2.5, Item 6 addresses audits. The BLM and member agencies of the JPO in close cooperation with APSC, have begun a systematic process to identify the critical functional components of TAPS. The process, called reliability centered maintenance (RCM), is an ongoing system-by-system audit that determines function, failure modes, consequences and preventative maintenance of critical systems. The BLM is committed to RCM and believes that this process represents a proactive approach to oversight and regulation of TAPS. In addition, RCM is widely used in the airline and other industries as the standard tool for reducing risk of failure to critical system components. Reducing risk in TAPS critical systems directly translates to increasing safety and reducing environmental risks. See Section 4.1.1.7 for additional discussions on RCM.

00143-023: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00143-024: The reader is directed to the discussion of escrow funds found in Section 2.5.

00143-025: The reader is directed to Section 2.5, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00143-026: See Sections 4.1.1.8 and 4.1.4 regarding contingency planning. See also the text boxes associated with the Livengood bullet hole incident and Copper River Drainage contingency planning in text boxes in Sections 4.1.1.8 and 4.4.4.3, respectively.

Wanda S. Ballentine, 1195 Sylvania Rd., Cleveland Heights, OH 44121-2523
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August 18, 2002

BLM TAPS Renewal EIS
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1-866-542-5904

State of Alaska, DNR/JPO
Attn: TAPS Renewal Team
411 West 4th Ave., Suite 2C
Anchorage, AK 99501

(907) 646-5012

Re: The Trans-Alaska Pipeline System (TAPS)

I have learned that the 30-year right-of-way agreements between the federal and state governmen and the owner of the Trans-Alaska Pipeline System (TAPS) are up for renewal for another 30 years.

A 30-year old pipeline transporting a million barrels of oil daily 800 miles from the North Slope oil fields to Valdez must be due for a major overhaul. As the pipeline crosses 80 rivers and streams, three mountain ranges and some of those most spectacular locations in Alaska, we certainly don't want any spills. Yet the federal DEIS and the state's Proposed Determination are relying on Joint Pipeline Office (JPO) documents that ignore these issues. They rely on TAPS owners saying they'll maintain the aging pipeline in good condition for the next 30 years. They didn't do very well with the spills on pipeline startup, the Livengood bullet hole spill, or the 21-inch shift in a pipeline section at Atigun Pass that was undetected for several months. A thorough, independent environmental review is needed, and periodic technology and environmental reviews should be mandatory as a condition of reauthorization. 144-1 144-2

Global warming is here, is already impacting Alaska, with greater impacts predicted, yet the proposal does not adequately address the threat to permafrost and TAPS structural supports. 144-3

Th
ough Citizen Advisory Councils have been viewed by both industry and government as essential in environmenal protection, no recommendation for such has been included.
I urge you to insist on thorough and proper pipeline maintenance and repair, to require a plan to deal with the effects of global warming, and the establishment of a Citizen Advisory Council to monitor the situation. 144-4

Thank you,

Wanda S. Ballentine

100% re-used paper - save a tree, save a river, save a planet!

Responses for Document 00144

00144-001: See the text box on the MP 400 bullet hole incident in Section 4.1.1.8 of the FEIS.

00144-002: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00144-003: VSM stability is obviously critical to TAPS integrity. As such, it is the focus of extensive monitoring and surveillance. Please see Section 4.3.2 of the FEIS (Soils and Permafrost) for additional information.

00144-004: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

PHILLIPS Alaska, Inc.
A Subsidiary of PHILLIPS PETROLEUM COMPANY

P.O. BOX 100360
ANCHORAGE, ALASKA 99510-0360

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August 20, 2002

VIA HAND DELIVERY

Mr. Pat Pourchot
Commissioner
Alaska Department of Natural Resources
400 Willoughby Avenue
Juneau, AK 99801

Mr. John Kerrigan
State Pipeline Coordinator
411 W. 4th Avenue, Suite 2
Anchorage, AK 99501

RE: Federal Grant of Right-of-Way and State Right-of-Way Lease for the Trans Alaska Pipeline System

Phillips Alaska, Inc. ("PAI") and Phillips Transportation Alaska, Inc. ("PTAI") (sometimes jointly referred to herein as "Phillips") submit these comments in support of the U.S. Department of the Interior's and the State of Alaska's recommendations to extend the federal grant of right-of-way and the state right-of-way lease ("ROWs") for the Trans Alaska Pipeline System ("TAPS") for an additional 30 years on substantially the same terms and conditions as presently exist.

These recommendations are warranted for several reasons:

First, TAPS has operated safely and reliably since it began operation in 1977 and Phillips, through PTAI, is committed to continued investment in TAPS and Alyeska Pipeline Service Company's ("Alyeska") pro-active maintenance programs to ensure continued safe operation of TAPS for another 30 years.

Second, a 30-year renewal on essentially the same terms and conditions affirms the current regulatory system that governs TAPS. Furthermore, with the exception of the many millions spent on this renewal effort, does so without adding unnecessary incremental costs to the transportation of Alaska North Slope ("ANS") crude through additional conditions and stipulations. PAI, as well as the other North Slope producers, has no other transportation alternatives for its ANS crude. A 30-year renewal ensures transportation is available for the long term and, at the same time; it assists in keeping costs competitive for all users of TAPS. 145-1

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PHILLIPS' COMMENTS IN SUPPORT OF STATE AND FEDERAL RIGHT-OF-WAY RENEWAL

Why a 30-year Term of Renewal for the TAPS Rights-of-Ways is Appropriate

Phillips supports nothing less than a 30-year renewal of the state and federal ROW's for TAPS. We believe this approach enables the maximum commercial recovery of ANS hydrocarbon reserves to take place by establishing a favorable investment climate, leading to the realization of the optimum economic benefit of ANS production for all stakeholders. At the same time, we remain committed to our program for environmental stewardship and to utilizing sound operational practices to ensure the ongoing safety of the transportation network. 145-2

Today's energy industry is truly global in nature, with fierce competition between investment opportunities for capital funding. Being a competitive producer and maintaining a stable transportation system is critical to continued investment in Alaska. Since crude oil is a commodity whose price is determined by market forces, one of the most direct means we have of influencing our profitability is by continuously striving to achieve a low cost structure. At Phillips, we recognize this and work very hard to control our costs. However, the Alaskan North Slope is a long way from the markets on the West Coast and Hawaii, and transportation costs are one of our greatest challenges. Renewal of the TAPS ROW's for a term of 30 years, as recommended, helps to minimize costs and leads to more economically attractive investments that have the best chance of gaining approval for more capital investment in Alaska.

According to the Alaska Department of Revenue, the average cost per barrel for shipping ANS crude on a tanker is approximately $1.69. In addition, the Federal Energy Regulatory Commission reports the TAPS tariff cost for sending a barrel of crude through the 800-mile pipeline to Valdez is $3.50. At a present rate of $5.19 per barrel, total transportation costs, combining marine and pipeline transit fees, represent our single biggest operational expense. While the magnitude of the per barrel costs incurred to transport crude oil from the North Slope to market are not unique to the world energy industry; it does mean that the impact of transportation expenses on a project's financial viability are proportionately higher than most areas. These costs must be offset by either relatively low capital costs or large volumes of recoverable reserves. It also means that North Slope operating margins will have greater exposure to oil price volatility. Thus, there is considerable incentive to strive for the lowest possible transportation costs, while not compromising our safety or environmental performance.

The cost to renew the state and federal ROW's for TAPS is estimated to be in the tens of millions of dollars, expenses that will be passed on to the shippers on TAPS

over time in the form of tariffs. For North Slope producers, a very critical relationship exists between the level of TAPS costs, production and continued capital expenditures for exploration and development.

1. Per barrel tariffs for TAPS are generally determined by allocating recoverable costs over the volume shipped through the line.

2. Production shipped through TAPS will depend on the amount of new field exploration and development work done, as well as ongoing investment in exploitation and recovery of reserves at currently producing fields.

3. Continued North Slope investment will depend on the economic feasibility of each project, which is heavily influenced by transportation costs.

To ensure that an effective cost structure exists that provides for the lowest possible TAPS tariffs, each component of the equation, the TAPS cost structure, production volumes, and oil field investments, must be working in the same direction. While similar costs would not necessarily be expected with more frequent ROW renewals, a 30-year term nevertheless minimizes expected expenditures and contributes to a stabilized environment needed to encourage ongoing North Slope investments.

Much of Alaska's oil production occurs on land leased by the State for exploration and development of hydrocarbon resources. As the landowner, the State earns revenue from leasing such land through up-front bonus payments, annual rental charges, and a retained royalty interest in oil and gas production. For example, the State of Alaska holds a 12.5 percent royalty interest in oil and gas produced from the North Slope's two largest producing fields, Prudhoe Bay and Kuparuk. It also holds similar royalty interests in other producing North Slope fields. The basis for royalty payments, as well as for Alaska production severance taxes, is the wellhead value of crude. In general terms, wellhead value is equal to the price received for a barrel of crude less the cost to transport it to the delivery point. Production from federal land will follow nearly the same structure. Thus, from a revenue perspective, the State of Alaska and the Department of the Interior, as royalty owners, have a vested interest in maintaining a low tariff structure for TAPS. Renewing the ROW's for 30 years on substantially the same terms and conditions complements the ongoing efforts to control costs associated with TAPS operations and that directly affect the level of tariffs paid to ship crude, which in turn leads to greater budget contributions from ANS production.

In addition to minimizing costs, a 30-year renewal of the TAPS ROW's also contributes to a favorable investment climate by reducing the level of uncertainty associated with the availability of the transportation infrastructure. Take for example the Alpine oil field, which began production in late 2000 and represents capital expenditures of more than one billion dollars. In our industry, you can't make billion dollar investments based just on what you know today, you have to believe that the future has enough certainty to justify that size of an investment.

Expectations for new oil field development typically include a 10 to 12 year exploration and development cycle, from lease sale decision through seismic work, exploration and appraisal drilling, project approval and permitting, and, finally, the start up of development. Before beginning this process, producers must have a high level of confidence that once a field is in production, the transportation network will not cut short the 15 to 20 year production life necessary to obtain the returns upon which the project was justified. Taking into account these long lead times, the capital-intensive nature of the projects, and the operating and transportation costs associated with North Slope production, a TAPS ROW renewal period shorter than the recommended 30 years creates additional risk that can adversely affect investment decisions.

Companies like Phillips need to have confidence in a reliable transportation system and assurance of a stable fiscal and regulatory regime. Uncertainty in these areas decreases the attractiveness of the investment. As a result, anything other than extending the pipeline ROW for 30 years would add uncertainty and will make Alaska a less attractive place to explore. The result would be to slow industry investment in exploration for new North Slope fields and limit expansion investment for those fields currently in production.

It is not just the upstream exploration and development activity that is affected by the anticipated life of TAPS; but the investment in the tanker fleet that carries ANS crude to markets on the West Coast and Hawaii. Polar is the shipping unit that transports Phillips' ANS crude to market. Polar has added two new, double hulled, Endeavour Class tankers to its Polar fleet, with an additional three scheduled for delivery by 2005. Polar also has options on a sixth and seventh ship, if necessary. Built specifically for the Alaskan trade, these vessels are designed to provide excellent structural performance for at least 30 years. Again, long lead times can come into play when decisions are made to proceed with the construction of tankers at more than $200 million each.

These Endeavour class ships demonstrate Phillips' commitment to protecting the environment and to the safe production and transportation of North Slope crude. A commitment that is possible only with a high degree of confidence in the continued delivery of crude to the Port of Valdez over the requisite number of years needed to warrant their construction.

Finally, renewal of the TAPS ROW for 30 years reduces uncertainty and contributes to a pro-investment climate and continued commitment to further investment in TAPS itself. A 30-year renewal sends a clear and powerful signal not only to the six owners of TAPS itself but to all of the companies investing in further oil and gas development in Alaska regarding the permitting conditions that can be expected for both ongoing and new ventures. With a favorable investment climate that helps to control transportation costs and reduces uncertainty about the availability of the pipeline network, North Slope energy projects remain competitive and provide the

145-3

maximum benefit to all stakeholders. These benefits are seen by our nation, in state and local communities, and by corporate shareholders.

TAPS is an economic engine that provides tax revenues for the state and the communities along the pipeline corridor. In 2001, the six pipeline communities and the State of Alaska earned more than $60 million from pipeline property taxes. The State and communities also earned an additional $2.3 billion from corporate income taxes, production taxes, royalties, and other property taxes paid by the industry. This revenue provides over 75% of the states general funding. 145-3 (Cont.)

The socioeconomic impact of less state revenue on the general population could be enormous. Without TAPS and the oil revenue it facilitates there would be much fewer social services, less employment, and, the final nail in Alaska's economy, a loss or our major export product, petroleum. Without TAPS, Alaska would be a net importer instead of an exporter of petroleum and petroleum products. 145-4

Not only would the state realize the loss, so would the federal government. All the tax revenue paid by companies operating on the North Slope would be gone, not to mention the added reliance on foreign crude to provide our nation's energy. Currently, the Alaskan North Slope produces over 1 million barrels per day; one out of every six barrels of crude oil produced in the U.S. Most of this crude oil is shipped to the U.S. West Coast and accounts for over 30 percent of the crude oil used there.

ANS crude oil production also has a significant impact on U.S. domestic supply, energy security, the balance of trade, and federal tax revenues. The United States had 22 billion barrels of proved oil reserves as of January 1, 2002, with 24% of those oil reserves located in Alaska. In the last 25 years, exploration on the North Slope has led to the discovery and development of five of the United States' 10 largest producing fields: Prudhoe Bay, Kuparuk, Point McIntyre, Endicott and Alpine. Geologists first estimated the Prudhoe Bay field contained 9.6 billion barrels of recoverable crude oil. By using new, enhanced recovery techniques and advances in technology, that figure since has been revised upward to more than 13 billion barrels of recoverable oil.

While ANS production can be expected to gradually decline over time, it will continue to have a significant impact on the rate at which U.S. dependence on foreign oil supplies grows. According to estimates by the U.S. Energy Information Administration, crude oil imports for the first half of this year averaged 8.9 million barrels per day, versus total domestic production of 5.9 million barrels a day. This compares to oil import rates of approximately 7.5 million barrels daily just five years ago, and 6.0 million barrels per day a decade ago. Total gross imports of oil and petroleum products were 11.6 million barrels a day during 2001, representing around 59% of total U.S. demand. Clearly, the level of dependence on foreign oil has implications for the United States' national security interests. In particular, the less reliance our nation places on oil imported from countries that are either politically or

economically unstable, the greater our energy security and the lower the risk of a significant disruption in supply.

Similarly, it is evident that American dependence on foreign oil plays a role in balance of trade deficits. In 2001, the United States ran a merchandise balance of trade deficit estimated at $413 billion, with another deficit forecast for this year of $437 billion.

There will also be direct substantial economic benefit to the U.S. Treasury from bonus bids, rentals, royalties and tax revenues derived from the continued North Slope production that can be expected with a full 30-year renewal of the TAPS ROW. 145-5

Keeping Costs Down By Not Adding Unnecessary Stipulations

As outlined above, the total cost of transporting a barrel of oil from the North Slope to market is nearly equivalent to developing and producing that same barrel of oil. Adding additional incremental costs through burdensome and unnecessary stipulations is neither warranted nor needed.

Both the state and federal analyses documents include a discussion of the many alternatives and issues that were raised and either discussed in detail or eliminated from further analysis. Specifically, the DEIS briefly discusses a number of issues in Section 2.5 and indicates that, for various reasons, they were considered but eliminated from detailed analysis. Many of these same issues were raised during the recent public hearings and it is likely that public comment will also be submitted in opposition to the recommendations for ROW renewal. Among these issues is the concept of adding an Advisory Committee or citizen oversight function for TAPS the cost of which would be borne by the TAPS Owners. We concur with the DEIS decision not to evaluate such a proposal in detail and encourage the BLM to maintain this approach in the Final EIS. 145-6

To begin with, many of the commentors in favor of this topic allege that such an oversight group is necessary for safety and protection of the environment. What the commentors fail to recognize is that TAPS has operated safely for 25 years with over 99% system reliability. This level of sustainable reliability could not have been achieved without Alyeska's proactive maintenance programs, which are based on continual monitoring and replacement of parts before failure. With the proper maintenance, the physical life of the pipeline could be virtually unlimited. Phillips supports Alyeska's maintenance activities and is committed to continued investment in TAPS. This continued investment will insure that TAPS will operate safely for another 30 years. 145-7

The economic life of TAPS closely relates to the North Slope economic life, as well as Phillips Alaska, Inc.'s viability on the North Slope, as it is the only means 145-8

available to currently transport crude oil from the North Slope to an ice free port. As long as both the long term production cost and the cost of transporting product to market are less than the selling price of the oil, TAPS will remain commercially viable. Phillips estimates North Slope oil production, above what is needed for minimal physical throughput, will last beyond the 30-year TAPS ROW renewal.

145-8 (Cont.)

Others will no doubt paint a much bleaker picture in arguing for an advisory committee. In opposition to such anticipated comments, we would refer you to the comments submitted by the TAPS ROW Renewal Project Manager, both today on the DEIS and the prior scoping comments. These comments speak for themselves but a few of the points warrant emphasis. First, as correctly pointed out in the DEIS, Federal law does not favor the creation of formal advisory functions. Public oversight is the province of the government and, in the case of TAPS, a special purpose agency (the Joint pipeline Office or JPO) was established to carry out just that function. A combined total of no less than 20 agencies, including the thirteen agencies that comprise the JPO, exercise jurisdictional authority over some aspect of TAPS operations. Such oversight is, in Phillips' experience, unprecedented anywhere else in it's world-wide operations. Under these circumstances, it is difficult to discern a compelling reason to provide for a second special purpose oversight organization particularly in light of the Federal preference against creation of advisory organizations.

145-9

Furthermore, the very nature of the regulatory system itself is that the government represents the public and is charged with seeing to the best interests of the public at large. Advisory or so-called citizen oversight groups are necessarily comprised of individuals who represent much narrower and/or special interests. This compromises the objectivity and effectiveness of such groups and is another reason they are not favored under the law. Additionally, advisory functions generally do not possess the expertise needed to exercise effective oversight of technically complex operations like TAPS – one of the very reasons special purpose agencies like JPO (DOT, EPA, ADEC, etc.) were created.

Finally, as pointed out in the DEIS, the authority does not exist within the context of the right of way renewal decision to establish such a new advisory/oversight function nor to compel funding of it from the TAPS owners and is therefore outside the scope of this EIS process.

The Economic Impact of TAPS on the Alaska Economy

TAPS and the North Slope fields provide an important source of budget revenues and employment. Local governments, social services, individuals, and all branches of government benefit both directly and indirectly from the Alaska oil and gas industry because it is a continued, reliable source of revenue.

The petroleum industry is Alaska's largest non-governmental industry. Alaska Department of Revenue multipliers indicate each oil industry job creates two additional indirect jobs. Phillips Alaska has approximately 950 employees in the state.

A study commissioned by the Alaska Oil and Gas Association and the Alaska Support Industry Alliance, based on 1999 purchasing and payroll records, found that the oil and gas industry generates about 33,500 jobs and $1.4 billion in payroll in Alaska. This represents approximately 12% of private sector jobs and 20% of private sector payroll in the state. The employment and payroll cited by the study includes:

- Direct impact: 4,532 jobs and $422 million in payroll for the oil and gas companies active in production, transportation and refining;
- Induced impact: The impacts resulting when 4,532 employees spent the money they received in their payroll checks were an estimated 4,703 jobs and $133 million in payroll;
- Indirect impact: $1.7 billion in spending in Alaska by the oil industry generates 24,338 jobs and $880 million in payroll through the rest of the Alaska economy. Of this, 13,295 jobs, and $527 million in payroll, is generated in Alaska among the oil company support industry businesses.

145-10

Combining the $1.7 billion used to purchase goods and services in the state with the $422 million direct payroll of the primary producers represents an amount that is roughly equal to the state's general fund budget spending.

In addition, together with the State of Alaska and our industry partners, we are training Alaskans for construction and operating jobs through our commitment to the Alaska Process Industries Career Consortium Operator Internship Program at the University of Alaska campuses in Kenai, Fairbanks and Anchorage.

One of the roles of Phillips is to be a good partner in the Alaska business community and a good neighbor in communities throughout the state. In 2001, these community relations and support resulted in contributions of more than $6.4 million. These funds were used to support educational institutions, youth groups, and nonprofit organizations providing critical human services and that promote Alaska's rich cultural history and diversity, just to name a few. The Charter for Development of Alaska's North Slope, signed by Phillips in 1999, established a formula under which Phillips' annual contributions budget is determined based on the company's annual liquids production in Alaska and the annualized price of crude oil.

Phillips strongly recommends that the renewal of the Trans Alaska Pipeline System Right-of-Way be extended for a term of 30 years, not only for the economic future of our company, but for future of the Alaskan and United States economies.

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Third, the outcome provides us confidence that the state and federal governments are acting in furtherance of the long-term development of Alaska's resources by continuing to provide an atmosphere that fosters investment in exploration and development of North Slope oil and gas fields. As a producer, PAI must have a high level of confidence that once a field is in production, the transportation network will not cut short the 15 to 20 year production life of the average ANS producing field.

Finally, numerous communities, individuals, social services, and the local, state, and federal governments benefit both directly and indirectly from the Alaska oil and gas industry because it is a long-term, reliable source of both jobs and direct revenue. Renewing the ROW's without adding unnecessary stipulations provides assurances that this will continue far into the future.

Phillips' Presence in Alaska

Phillips is the largest producer of oil and gas in Alaska at over 390,000 barrels per day of oil equivalent. The company is a top producer, and shipper of Alaskan oil and gas, and owns substantial ownership interests in four North Slope common carrier pipelines including its nearly 27 percent interest in TAPS. Phillips has approximately 950 employees in the state located from the North Slope to the Kenai Peninsula.

PAI operates about one-half of the North Slope fields and over 30% of the production. PAI has varying ownership interests in almost every field on the North Slope and our production from the fields makes up over 35% of all the oil shipped down TAPS. In 2001 alone, Phillips invested over $600 million dollars in development and exploration in Alaska. PAI is the most active explorer on the North Slope. In 2001, PAI drilled 13 exploration wells and shot over 1000 square miles of 3D seismic. The next most active North Slope explorer drilled only two wells in 2001. PAI is not only the most active explorer, but also holds over 1.3 million acres of undeveloped exploration leases on state and federal lands. PAI pays lease bonuses and rents on these lands and the option to explore for and develop new oilfields is a significant asset for the company.

PTAI is not only a nearly 27 percent interest owner of TAPS, but for 2001, shipped over 35% of all production on TAPS on its space. Phillips is also one of the original six companies that joined together in 1969 to take on one of the most challenging engineering feats ever undertaken - the design and construction of TAPS. PAI is dependent on the ability of TAPS to move our production to market.

Phillips' Future Plans

Phillips has explored for oil and gas on Alaska's North Slope for over 50 years, and has had numerous commercial successes. In the last 10 years, Phillips and its

predecessor, ARCO Alaska, Inc., has participated in the exploration and development of new North Slope fields; for example, the Alpine, Tarn and Meltwater fields have all started commercial production since 1998. This is in addition to the discovery of more than a dozen satellite fields in or near existing developments.

As the largest owner of state and federal leases, 1.3 million acres, Phillips is the leading explorer in Alaska. The company currently holds more than 500,000 acres of leases in the NPR-A. In 2001, Phillips and its partners announced the first discoveries in the NPR-A since the area was reopened to exploration in 1999.

As exploration on Alaska's North Slope moves farther west and decentralizes from the Prudhoe Bay area, it is important to note that drilling becomes increasingly challenging. This is due to the lack of infrastructure in NPR-A, and its distance from current production areas such as Prudhoe Bay and Kuparuk. The economic hurdles, posed by distance from infrastructure and a very short drilling season, add to our challenges. As longtime Alaskan petroleum explorers, Phillips will work aggressively to meet those challenges and find economic methods to bring new production into place.

In coming years, our strategy will be to continue developing satellite fields at the Greater Kuparuk Area. This will be critical to replacing declining oil production in the nation's second largest oil field - Kuparuk. Meltwater, the fourth Kuparuk satellite field to come online, continues to ramp up since its start-up in November 2001. By year-end 2002, the Meltwater field is expected to be producing at a rate of about 12,000 BOPD. A fifth Kuparuk satellite field, Palm, kicked off construction activity in January 2002. Palm, also known as Drill Site 3S, will be developed as a single new drill site and extension of the Kuparuk field. Oil produced from the new drill site will be processed at Central Processing Facility 3. At peak production in 2003-2004, the incremental field production from Drill Site 3S is expected to be approximately 16,000 barrels of oil per day. Phillips will invest approximately $115 million in developing this project using Alaska-based contractors and companies.

Phillips' Commitment

Phillips is committed to the safe production and transportation of ANS crude. Over the past five years alone, PTAI invested $60 million capital in TAPS and anticipates spending an additional $80 to $90 million capital in the next five years. Furthermore, through its subsidiary, Polar Tankers, Inc., Phillips is investing in new tankers to carry Alaska oil to market. The Endeavour Class tankers are being built to meet and/or exceed existing and proposed environmental regulations. These tankers cost more than $200 million dollars each to build and Polar currently has two in operation with an additional three to be constructed by 2005. The tankers are built just for the

Alaska trade and each has a lifespan that exceeds the recommended 30-year renewal timeframe.

Phillips sees tremendous potential for the Alaskan North Slope, but without ready means to transport our product to market all of this exploration and development would not be possible. The oil and gas industry in Alaska depends on TAPS and, without this renewal, both the industry and the revenues it generates for the state would dwindle. It is critical that the ROW's are renewed. In our opinion, it is also critical to renew them for 30 years and, as proposed, without adding unforeseen costs to the system through unnecessary new stipulations. 145-11

Phillips supports and endorses the comments submitted this same date by Mr. W. Steven Jones, TAPS ROW Renewal Project Manager, on behalf of the TAPS Owners including an adoption by reference of the scoping comments that were previously submitted. We also wish to emphasize certain critical points through the attached analysis and comments to provide further support for the state and federal recommendations for renewal.

Very truly yours,

Kevin O. Meyers
President, Phillips Alaska, Inc.

Meg A. Yaege
President, Phillips Transportation Alaska, Inc.

/keh
attachment

Responses for Document 00145

00145-001: Thank you for your comment.

00145-002: Thank you for your comment.

00145-003: Thank you for your comment.

00145-004: Thank you for your comment.

00145-005: The impact of TAPS renewal on federal tax revenues is covered in Section 4.3.19.2.3 of the EIS.

00145-006: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00145-007: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00145-008: Thank you for your comment.

00145-009: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00145-010: Thank you for your comment.

00145-011: Thank you for your comment.

TAPS ROW Renewal
1835 South Bragaw Street, MS-568, Anchorage, Alaska 99512
Telephone (907) 787-8862 FAX (907) 787-8322

August 20, 2002

APSC Letter No. 02-18968

Mr. John Kerrigan
State Pipeline Coordinator's Office
411 West 4th Avenue, Suite 2C
Anchorage, AK 99501-2343

Re: Comments on "The State Pipeline Coordinator's Report
For Renewal of the Trans-Alaska Pipeline Right-of-Way Lease" (July 2002)

Dear Mr. Kerrigan:

Enclosed for your consideration are the comments of the Trans Alaska Pipeline System owner companies on the referenced report. The comments are provided in a matrix format. We hope you will find this approach useful and the comments helpful.

If you have any questions or concerns, please do not hesitate to contact me at 787-8091.

Sincerely,

W. Steven Jones
TAPS ROW Renewal Project Manager

Enclosure

xc: P. Pourchot, w/ enclosure
M. Thompson, w/ enclosure
S. Martin, APSC, w/ enclosure
TAPS Owner Companies, w/enclosure

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TAPS Owners' Comments on State Pipeline Coordinator's Report Report -- July 2002

Page No.	Section Title	Section No.	Para No. on Page	Line No. w/ in Para	Comments
0	Context of State Pipeline Coordinator's Report	0			It would be helpful if the context within which the State Pipeline Coordinator's Report ("SPC Report") is prepared and its place in the renewal process were set out early in the report in a subsection directed at the report's purpose. Specifically, the report would state that the environmental impact statement and accompanying decision-making process is ongoing and the report supplements but does not supplant that process; that the report is being prepared in conjunction with the Commissioner's proposed determination to renew the Lease that was published simultaneously with the draft environmental impact statement; and that the report in many respects summarizes the results of Comprehensive Monitoring Program reports and other documents that the Joint Pipeline Office has prepared and Surveillances it has conducted in recent years.
00	Duration Requirement -- Description and Analysis	00			The State is not only rendering a decision to renew the Lease and associated ancillary permits and rights, it is also deciding the length of the renewal, which under AS 38.35.110 may be for a period up to 30 years. Under those circumstances, the report would be more complete by (i) stating that under AS 38.35.110 and other applicable law, renewal of up to 30 years is authorized after consideration of facility costs and financing requirements, the pipeline's useful life, public purposes it serves, and other matters in the public interest and (ii) analyzing each of those elements and describing why it supports a 30-year renewal. Such a discussion would parallel the BLM TAPPA Report's description of relevant considerations and its analysis of them (which the State may wish to draw upon) and elaborate on the discussion set out in the "Recommendation" section of the SPC Report. See, e.g., Draft TAPAA Report at III.1, V.1, V.2, V.3, and V.6; SPC Report at VII, Recommendation 2. A summary of that discussion would also be helpful in the Executive Summary.
000	Ancillary Facilities	000			As part of the renewal process, the TAPS Owners have also sought renewal of non-perpetual ancillary permits and rights associated with the Lease, including access roads, communication sites, and similar facilities and improvements. See, e.g., Application, Volume 2 of 3. The SPC Report would benefit from the addition of more discussion of these ancillary rights as well as the Lease. That may be accomplished in two ways. First, a section entitled "Ancillary Facilities" that reads substantially as follows should be included in the SPC Report: "The TAPS Owners have also sought renewal of ancillary permits and rights for access roads, communication sites, and other related facilities and improvements. See TAPS ROW Renewal Application at Volume 2 of 3. With regard to the term of renewal for these ancillary facilities, also known as Related Facilities in the Stipulations 1.1.1.37, the duration of the ancillary permits and rights on their faces is tied to the state Lease and federal Grant that are being renewed for 30 years, therefore the ancillary permits and rights are automatically extended 30 years by virtue of the renewal of the Lease and Grant. In all events, however, the State has comprehensively considered all aspects of TAPS -- including renewal of the ancillary facilities -- through the renewal process and extends the ancillary permits and rights for a duration that is the same as the Lease." Second, other conforming changes should be made in the SPC Report that reflect that the State is renewing both the Lease and non-perpetual ancillary permits and rights for a 30-year term. See also TAPS Owners' Comments on the Commissioner's Statement and Written Determination.
0000 Page i	Executive Summary	0000	All		The Executive Summary should be revised to indicate that the state law compliance determination is made on the basis of all pertinent material in the administrative record, including state agency reports, Comprehensive Monitoring Reports and other reports prepared by or for JPO, and the State Pipeline Coordinator's review of all of that data. It should also state that the Lease compliance determination is made on the basis of all pertinent material in the administrative record, including JPO reports and other analyses prepared by or for it, state agency reports, and the State Pipeline Coordinator's review of all of that data.
001	State Lease Renewal Process (AS 38.35) Overview of Trans-Alaska Pipeline Right-of-Way Renewal Process	I.a.	02	Footnote 1	Typo: In footnote one, insert the word "and" before "Phillips Transportation Alaska, Inc."
001	State Lease Renewal Process (AS 38.35) Overview of Trans-Alaska Pipeline Right-of-Way Renewal Process	I.a.	02	Footnote 1	In footnote one, delete "BP and ARCO merged in 2000".
001	State Lease Renewal Process (AS 38.35) The Lease Renewal Requirements	I.b.	04	Footnote 2	In footnote two, delete "upon a written request by the Lessee to amend the term of the Lease. The May 2, 2001,TAPS Right-of-Way Lease"

1243

TAPS Owners' Comments on State Pipeline Coordinator's Report Report -- July 2002

Page No.	Section Title	Section No.	Para No. on Page	Line No. w/ in Para	Comments
002	State Lease Renewal Process (AS 38.35) The Lease Renewal Requirements	I.b.	05	02	Typo: After the word "chapter," change "The" to lower case.
002	State Lease Renewal Process (AS 38.35) The Lease Renewal Requirements	I.b.	07	Footnote 2	Delete the balance of Footnote one that carries over from the previous page.
003	State Lease Renewal Process (AS 38.35) The Lease Renewal Requirements	I.b.	01	02	Typo: After the word lease change "is" to "are".
003	State Lease Renewal Process (AS 38.35) The Lease Renewal Requirements	I.b.	02	02	Typo: Change "Within" to lower case "w".
004	State Lease Renewal Process (AS 38.35) The Administrative Review Process	I.c.	03	01	After May 2, 2002, delete "Alyeska Pipeline Services Company (Alyeska), agent for the". Delete the coma after the word "Leasees".
005	State Lease Renewal Process (AS 38.35) The Administrative Review Process	I. c.	02	05	Typo: Insert the word "or" after the word "determination".
005	The Trans-Alaska Pipeline System Brief History and Description of TAPS	II.a.	03	01, 02	Delete "the" after the word "established". Insert the words "Alyeska Pipeline Service Company" before "Alyeska" and put it in parenthesis.
005	The Trans-Alaska Pipeline System Brief History and Description of TAPS	II.a.	05	01	Replace the words, "applies to the" with "cover".
005	The Trans-Alaska Pipeline System Brief History and Description of TAPS	II.a.	05	03	Replace the words, "TAPS ROW" with "lands on which TAPS is built". Replace the words, "Alyeska has" with "Lessees have".
006	The Trans-Alaska Pipeline System Brief History and Description of TAPS	II.a.	04	08	Typo: Correct the spelling of "Atigun".
009	DNR/JPO Ongoing Oversight and Administration of the TAPS Lease Compliance Monitoring -- Methodology	III.a.4.	01	03	Typo: Insert the word "a" between "into practicable".
009	DNR/JPO Ongoing Oversight and Administration of the TAPS Lease Compliance Monitoring -- Methodology	III.b.1.	05	0	Item (1) . Change "JPO for review and approval" to "JPO for review and permit coordination"
011	DNR/JPO Ongoing Oversight and Administration of the TAPS Lease Compliance Monitoring -- Reports	III. c. (4)	06	04	Typo: Change "functions" to "function".
012	DNR/JPO Ongoing Oversight and Administration of the TAPS Lease Compliance Monitoring -- Reports	III.c.	01	01	Typo: Delete "substantial JPO". It is a repeated phrase.

1244

TAPS Owners' Comments on State Pipeline Coordinator's Report Report -- July 2002

Page No.	Section Title	Section No.	Para No. on Page	Line No. w/ in Para	Comments
012	DNR/JPO Ongoing Oversight and Administration of the TAPS Lease Compliance Monitoring -- Reports	III.c.	01	09	Delete "which require compliance with all terms regardless of risk."
014	DNR/JPO Ongoing Oversight and Administration of the TAPS Lease Compliance Monitoring - Reports	Id.	03	05	Typo: After the word "order", replace the word "is" with "are".
014	DNR/JPO Ongoing Oversight and Administration of the TAPS Lease Compliance Monitoring - Reports	III.d.	03	02	Typo: Delete the semi colon after the word "situation". Check the proper cite for "s((See Appendix E, Stipulation 1.21)."
014	DNR/JPO Ongoing Oversight and Administration of the TAPS Lease Compliance Monitoring - Reports	III.d.	03	08	Check the proper cite for "(see Appendix E, Stipulation 1.21)." Do you mean to refer to Attachment 1 to this report?
015	Additional Information Considered Lessees Provided Information	IV.a	02	03	Replace "ROW" with "Federal Grant and State Lease".
015	Additional Information Considered Lessees Provided Information	IV.a	04	02	Replace "Their" with "The" initial response... Add " 's" after "Alyeska".
016	Additional Information Considered Lessees Provided Information	Inv.	01	02	Typo: Replace "their" with "its" proposed plans.
017	State Right-of-Way Lease and Applicable Laws	V.	02	03	Typo: Delete the semi colon after "pipeline"
017	State Right-of-Way Lease and Applicable Laws Sections and Stipulations	V.a	06	Footnote 4	Delete the last sentence of footnote 4, " While useful during pipeline construction activities . . . "
018	State Right-of-Way Lease and Applicable Laws Sections and Stipulations	V.a	01	01	Delete "is" and replace with "has placed particular emphasis on" reviewing.
018	State Right-of-Way Lease and Applicable Laws Sections and Stipulations	V.a	02	04	Typo: Change "have" to "has" oversight.
020	State Right-of-Way Lease and Applicable Laws Federal Laws and Regulations	V.d	03	01	Insert at the beginning of this section: "Some of the federal agencies involved in TAPS oversight are discussed below."
020	State Compliance Review Commercial Operation	VI.a	07	01	This section of the report should include, among other things, the fact that over 13 billion barrels of oil have been transported through the TAPS pipeline to date, that over 1 million barrels of oil per day are presently being transported through the pipeline, and that billions of barrels of oil are projected to be transported through the pipeline over the next 30 years. The Executive Summary should also be supplemented to reflect that information.

TAPS Owners' Comments on State Pipeline Coordinator's Report Report -- July 2002

Page No.	Section Title	Section No.	Para No. on Page	Line No. w/ in Para	Comments
021	State Compliance Review Compliance with State Laws	VI.b	03	05	Although the reports of the appropriate state agencies are important evidence that TAPS is in compliance with state law, they are not the sole evidence of that compliance as suggested in the draft report. See, e.g., SPC Report at p. 21. JPO reports and other documents prepared over the years -- reports specifically referenced in the discussion of Lease sections and stipulations that frequently overlap with state law requirements -- constitute further important and persuasive evidence that TAPS is in compliance with state law. See, e.g., Lease Stipulation 2.2.1.1 ("In the construction, operation, maintenance, and Termination of the Pipeline, Lessees shall perform their activities in accordance with applicable air and water quality standards . . . .") and the Compliance discussion in the SPC Report addressing those standards, including information in JPO reports, databases, and other materials, such as set forth at p. 101 of the SPC Report with respect to Lease Stipulation 2.2.1.1. See also SPC Report Appendix D (JPO's Review and Assessment of the Det Norske Veritas Compliance Report). Accordingly, both the recently prepared state agency reports and other relevant materials, such as the JPO's Comprehensive Monitoring Program reports and other documents (including Appendix D of the SPC Report), should be relied upon to demonstrate that TAPS is in compliance with state law.
021	State Compliance Review Compliance with State Laws	VI.b	04	02	Typo: Change the word "Although" to lower case, "although".
022	State Compliance Review Compliance with the Lease	VI.c	03	02	Check cite, "Appendix F". We offer the following overall general comments on the breadth of the evidence used to demonstrate compliance with the lease: "While the report documents in detail why TAPS is in compliance with the Lease and its stipulations by resort to JPO reports, databases, and other materials, the state agency reports also provide evidence to support a conclusion that TAPS operations are in compliance with Lease requirements given the considerable overlap of Lease and state agency statutory and regulatory requirements. See, e.g., Department of Environmental Conservation's January 28, 2002 Report and Lease Stipulation 2.2.1.1. Accordingly, all of that evidence should be relied upon to support the conclusion that TAPS operations are being undertaken in compliance with Lease requirements."
022	State Compliance Review Compliance with the Lease	VI.c	07	03	Check cite, "Appendix E". Replace the text, ". . . there are no open issues of substantial noncompliance with the terms and conditions of the Lease." with the following text, " . . . TAPS in compliance with State law, the terms and conditions of the Lease and its Stipulations."
024	Recommendations	VII.	01	02	Delete the text, ". . . found no reason to constrain the duration of the renewal to a period of less than 30 years." with the following text, ". . . determined on the basis of the administrative record that the Lease, including ancillary rights and permits, should be renewed for 30 years."
024	State Compliance Review Literature Cited Compliance with the Lease	VIII	02	01	Check cite, "Appendix E".
028	Duration of Right-of-Way Grant	Section 2	04	01	Neither the Lease text here nor the comments mention the change from 10 years to 30 years for the renewal term.
030	Common Carrier	Section 4	04	04	Typo: Delete "There are", and insert "Lessees are" in place of "Lessee is".
033	Compliance with State Laws and With Regulations and Orders of the Alaska Pipeline Commission	Section 9	05	01	States DPS is working on the report, but it is now attached and shows TAPS in compliance.
067	Responsibilities	Stip 1.2	07	02	Definition of "moderate" and "low" risk has not been defined here and should not be used unless it is referenced to SA 38 definitions of risk and management intervention and correction criteria.
075	Notices to Proceed	Stip 1.7	02	01	Apparent Typo: sections of the Lease are not italicized, as is most of the document. Is this a format issue? Similar non-italicized sections occur on page 123.

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TAPS Owners' Comments on State Pipeline Coordinator's Report Report -- July 2002

Page No.	Section Title	Section No.	Para No. on Page	Line No. w/ in Para	Comments
076	Notices to Proceed	Stip 1.7	03	01	NTP and I-1 definitions may have changed some since October 7,1997. Suggest use of current interpretation.
079	Completion of Use	Stip 1.10	02	06	Delete last sentence, as it does not add clarity.
086	Surveillance and Maintenance	Stip 1.18	08	01	This part summarizes the three open items under Stip 1.18.1, all of which are related to a MP 170 incident in May 2000. The report would benefit from a more visible highlighting of the resolution process underway on these issues. Perhaps where these are first introduced on page 87, para 2, line 6 state ". . . three of which remain open, however resolution is underway."
126	Stipulation 3.2. Pipeline System Standards	Stip 3.2	06	05	Typo: Delete "was".
141	Construction and Operation	Stip 3.9	01	01	The text under 1, 2 and 3 appears to be missing some balancing information and doesn't report the latest known facts as accurately as possible. For example, there are not 25,000 VSMs that are subject to movement beyond operational tolerances. In fact, of the approximately 78,000 VSMs installed on TAPS, 99.7% of all VSMs are in excellent to good condition. Approximately 0.3% (about 230 VSMs) show some level of movement that require engineering evaluation (APSC Systems Integrity Monitoring Program Above Ground Monitoring Maintenance Program, 2000 Annual Report, p. 8, Argonne Request Document Control # 3069). In 2000, 18 VSMs were replaced at Squirrel Creek. During 2002, 6 VSMs are scheduled to be replaced at MP 735. Remaining VSMs requiring engineering evaluation continue to be monitored. In addition there are not 84% of heat pipes that indicate blockage beyond operational tolerances. In fact, only about 4,000 heat pipes (out of 124,300 total, or 3%) show some level of blockage that may require engineering evaluation. As a result of extensive testing on a full-scale lab model of embedded VSM with heat pipes, additional diagnostic methods have been developed to assess heat pipe performance. Field subsurface temperature measurements of heat pipes undergoing repair show frozen conditions, indicating that heat pipe maintenance is being performed timely. (Sorensen, et.al..., Thermal Performance of TAPS Heat Pipes with Non Condensable Gas Blockage, Argonne Request Document Control # 3309).

Responses for Document 00146

00146-001: This document is appropriately directed to the State of Alaska as part of the state lease renewal process.

415 E. Railroad Avenue * Wasilla, AK 99654
Email info@wasillachamber.org

Telephone (907) 376-1299 * Fax (907) 373-2560
Home Page www.wasillachamber.org

Voted "Alaska's Outstanding Local Chamber of Commerce ~ 1998"

RESOLUTION 02-02

A RESOLUTION OF THE GREATER WASILLA CHAMBER OF COMMERCE IN SUPPORT OF THE TRANS ALASKA PIPELINE SYSTEM RIGHT OF WAY RENEWAL

Whereas, the mission of the Greater Wasilla Chamber of Commerce is to create a positive economic and civic climate in the Greater Wasilla area, thereby making it possible for members and the community to grow and Prosper; and

Whereas, the Trans Alaska Pipeline System (TAPS) was granted a 30-year right-of-way in 1977 by both federal and state agencies; and

Whereas, the pipeline has been operated safely, efficiently and reliably, with a reliability rating of over 90%, for over 20 years; and

Whereas, the TAPS has transported over 13 billion barrels of oil from the North Slope to tankers in the Port of Valdez since it began operating; and

Whereas, approximately l million barrels of oil are transported through TAPS every day, representing approximately 17 percent of the United States' crude oil production; and

Whereas, there has been little or no documented physical, environmental or ecological disruption to the people or wildlife associated with the pipeline since its inception; and

Whereas, the petroleum industry generates significant revenues and employment for the Mat-Su economy; and

Whereas, oil industry forecasts for the next thirty years indicate North Slope production to be an estimated 8.9 billion barrels of crude oil, with a value estimated at approximately $374 billion; and

Whereas, since the current right-of-way lease expires in May 2004, the six companies that own TAPS filed state and federal applications to renew the pipeline right-of-way for another thirty years; and

Whereas, the right-of-way renewal process requires an Environmental Impact Study (EIS) examining impacts on the physical environment, biological resources and social systems; and

Whereas, the federal and state right-of-way documents permit the 800-mile pipeline to cross federal, state and private lands, and prior to beginning pipeline construction in 1974 the TAPS owners signed the state Lease and Federal Grant, detailing the terms for pipeline construction and operation; and

Whereas, these agreements have defined many of the state and federal requirements for TAPS operation since oil first started flowing through the pipeline in 1977; and

Whereas, the pipeline meets all conditions necessary for renewal of the Grant and Lease; and

Whereas, negative economic consequences, such as increased financing and bonding costs, decreased investment and exploration on the North Slope, and reduced revenues to federal, state and local governments would occur throughout Alaska; and

Whereas, the current Joint Pipeline Office, consisting of thirteen state and federal agencies, provide sufficient oversight of TAPS.

Now Therefore, Be It Resolved, the Greater Wasilla Chamber of Commerce does hereby support the TAPS right-of-way renewal for another thirty years. 147-1

Be It Further Resolved, that the Greater Wasilla Chamber of Commerce opposes the inefficiency and expense that would result from the creation of any additional form of oversight.. 147-2

Hereby, adopted by the Board of Directors of the Greater Wasilla Chamber of Commerce on this 14th day of August, 2002.

Annette DeLong, President

John Klapperich, President-Elect

Susan Price, Vice-President

Ted Perez, Treasurer

Paddy Coan, Secretary

ATTESTED: Paddy Coan, Secretary

Responses for Document 00147

00147-001: Thank you for your comment.

00147-002: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

ALASKA FEDERATION OF NATIVES, INC.
1577 C Street, Suite 300, Anchorage, Alaska 99501
907-274-3611 Fax 907-276-7989

RECEIVED
02 AUG 20 PM 1:48
JOINT PIPELINE OFFICE

Raw

August 20, 2002

State of Alaska, DNR/JPO
Attn: John Kerrigan, State Pipeline Coordinator
411 West 4th Ave., Suite 2C
Anchorage, Alaska 99501

Dear Mr. Kerrigan:

The Alaska Federation of Natives (AFN) has reviewed the Department of Natural Resources Commissioner's Statement of Reasons and Proposed Written Determination for renewal of the state Right-of-Way lease for the Trans-Alaska Pipeline System (TAPS). We offer the following brief comments.

We find that the state's analysis and determination are deficient in terms of discussion of Alaska Natives, the role subsistence plays in the life of village people, or the impacts to subsistence of the changes that have occurred over the past 30 years. We expected some acknowledgement by the authors of the importance of this subject. In fact, we found very few references to subsistence in the state documents regarding the proposed state lease renewal.

There is no question there have been impacts on subsistence resources as a result of the development of oil and the North Slope and the operation of the pipeline. From the macro issue of the increase in Alaska population due to the wealth that North Slope oil has brought to Alaska to the micro issues of the effect on individual species important to subsistence and individual villages, there have been many negative changes. The growth of the state's population has brought in more hunters. The construction of the haul road and airstrips along the right-of-way has increased the accessibility for hunters from urban areas and from outside of Alaska.

The result has been predictable. The moose population around our villages is disappearing. Caribou migration patterns along the upper Koyukuk River and in other areas have been changed. Stevens Village has seen an important pike fishery virtually wiped out. Subsistence resources in Prince William Sound were severely impacted by the Exxon Valdez Oil Spill.

It is important to note here that it is not the TAPS management practices of Alyeska that have created this problem. AFN believes that the fault lies with a fish and game management regime which has not sought local peoples' knowledge of the habits and population of game and fish and which has not been willing to adjust season and harvest regulations to accommodate the needs and the wisdom of the people who live closest to the resources. The state must take the lion's share of the blame for this situation, as it has been unwilling to change its constitutional structure to accommodate the needs of the people who most rely on these resources for their cultural and dietary sustenance. In addition, decisions by the state, such as the opening of the Dalton Highway to the public, have exacerbated an already difficult situation.

We recognize that the state statutory test for renewal of the TAPS lease is fairly limited. However, because of the broad authority vested with the Commissioner to evaluate a suite of topics when determining the state's best interest, we find that a discussion of Alaska Natives and the changes to subsistence over the period of the initial lease, is appropriate in the state documents framing the renewal decision. Further, we note the unique operational structure of the JPO with regard to multiple TAPS oversight agencies working jointly with the DNR State Pipeline Coordinator. It is our belief that a strong lead by DNR to present the subsistence issue through the eyes of the village people who are most affected by the changes which have taken place, would facilitate efforts by the agencies involved in managing subsistence to make the future better for our people.

AFN has also recently completed our review of the Draft Environmental Impact Statement (DEIS) for renewal of the grant for federal lands to TAPS. The DEIS identifies that subsistence data to analyze impacts associated with renewal of the TAPS authorizations is non-existent. The DEIS authors have stated they were handicapped by the inability of the state and Federal governments to provide the data that is necessary to analyze the impacts that TAPS has had on subsistence. It is more than ironic that the very organization given the responsibility for protecting subsistence, the Alaska Department of Fish and Game, was apparently unable to provide meaningful data that might have allowed the authors to make a more realistic assessment of the impacts of the last 30 years. While we do not believe that the DEIS authors thoroughly reviewed all sources that would have provided information on impacts to subsistence, we do agree that a comprehensive data set for subsistence use patterns and potential impacts related to TAPS does not exist. In our discussions with Alyeska, and federal and state agencies, all parties agree that analysis of subsistence is limited by a lack of data and that there is no systematic approach to collecting subsistence data.

Therefore, we make the following recommendation regarding the state lease:

That the right-of-way lease contain a new stipulation requiring the collection of data which can clearly show the trends in subsistence taking of fish and game and the impact of non-subsistence hunting and fishing on those subsistence trends. Tribal governments and other Native organizations should be directly involved in the gathering of this data.

AFN's recommendations regarding such a program are included as an attachment to this letter. Absent inclusion of a new stipulation in the renewed lease, we request a commitment from the state to assume the responsibility for implementation of such a program and the immediate pursuit of funding for this effort.

We appreciate the opportunity to comment on the Commissioner's Statement of Reasons and Proposed Determination.

Sincerely yours,

Julie Kitka
President

Attachment: AFN Proposed Subsistence Data Collection Program

cc:
AFN Right-of-Way Renewal Committee
Steve Jones, Alyeska Pipeline, TAPS Right-of-Way Renewal Team
John Shively, Jade North, LLC

Attachment

AFN RECOMMENDATIONS: SUBSISTENCE DATA COLLECTION AND ANALYSIS PROGRAM

AFN recommended the following regarding the renewed state lease for the right-of-way for TAPS:

That the right-of-way lease contain a new stipulation requiring the collection of data which can clearly show the trends in subsistence taking of fish and game and the impact of non-subsistence hunting and fishing on those subsistence trends. Tribal governments and other Native organizations should be directly involved in the gathering of this data.

Our goal is to collect data so that information will be available to assess what, if any, impacts to subsistence uses are associated with continued operation of the TAPS. Since the effects of TAPS or other influences on subsistence resources and users cannot be measured without establishing a baseline for comparative purposes, it is essential to develop a project that first collects baseline data and then continues data collection into future years to provide the foundation for comparison to the baseline information. In addition, such information would be essential if a claim were ever made under the provisions of Section 30 of the grant.

Study Area: The scope of the study area should include at a minimum those communities along the TAPS corridor or that have already experienced impacts associated with TAPS, or are identified as likely to experience impacts associated with TAPS operations over the period of renewal.

In addition to the identified study communities, we also envision interviewing key respondents who might be able to provide information on pre-TAPS uses of what are now the TAPS corridor and marine transportation corridor areas.

Native Involvement: A key objective of our recommendation is to have these communities and their associated Native organizations actively involved in the specific subsistence research and data collection activities. We propose support of the program by the Alaska Department of Fish and Game, Subsistence Division, through study design assistance, survey questionnaire development, training of participating community positions, data entry/analysis, preparation of summary reports, and database maintenance. In addition to conducting the actual subsistence data surveys, Native organizations would work with ADF&G on subsistence data analysis including the relationship of non-subsistence seasons, bag limits and harvest data. Because of the dual management of subsistence in Alaska, involvement of the Department of Interior and the Department of Agriculture is also essential.

Some portion of the funding required for this work would be channeled to communities and Native organizations that would be involved in the work in order to fund positions to

conduct surveys and participate with the state and the federal agencies in data analysis and comparisons as well as to fund training of these positions.

Study Term and Activities by Year: A multi-year (10- year) study is proposed that would involve doing baseline household surveys during the first year, and subsequent years of harvest monitoring of selected species. The first year work would include developing a study design including a survey plan, training the community and/or Native organization participants, conducting the surveys, summarizing the information, and doing initial comparisons to sport and commercial data. First year baseline information would be used to focus monitoring efforts of the future years. In years 2-10, annual monitoring surveys would be completed as would database maintenance, analyses, and report preparation.

Study Design: We envision a major component of this project occurring in year one during development of a detailed study design acceptable to the Native community, Alyeska, and the state and federal subsistence managers. The study would be planned and designed toward the goal of eliminating the subsistence data gaps that limited the TAPS Right-of-Way renewal process EIS and ANILCA 810 analysis. That is, the study would be designed keeping in mind the statistical analyses that would ultimately be run on the database to measure change as it is measured in the traditional western model. The survey would be designed to ensure all necessary information to complete such eventual analyses were solicited and obtained in each year of data collection. The design would also include a protocol for incorporating both the information in the formal surveys as well as information from traditional knowledge. Finally, a critical element of the study design would provide the ability to evaluate the subsistence harvest data relative to sport and commercial harvests. This element would assess the allocation among user groups and harvest limits applicable to each (including seasons and bag limits) as well as overall harvest success by user group. This element is necessary in order to evaluate trends in wildlife populations, the level of local subsistence harvest and the impact of competition from sport and commercial users on subsistence harvest. It will also enable managers to properly assess the impacts of development on wildlife and subsistence users including any impacts resulting from TAPS renewal.

Because the range of study species may be narrowed after year 1, study design would also detail a mechanism for concurrence by the above parties with any proposed narrowing of monitoring efforts for years 2-10 based on the results of year 1. This element is important to ensure the continued participation of the Native community and to avoid compromising statistical analyses required to allow meaningful analyses of the results including analyses of the impact of non-subsistence take on subsistence.

Although we have suggested a to new stipulation be added to the grant of right-of-way and the state lease to accomplish the goal of collecting reliable data relating to impacts on subsistence, we recognize that this type of data collection is usually the responsibility of those government agencies which are managing subsistence. If the state and federal agencies involved would undertake their responsibilities for collecting and analyzing this data, such a stipulation would be unnecessary.

Responses for Document 00148

00148-001: This document is appropriately directed to the State of Alaska as part of the state lease renewal process.

00149

BLM's Trans-Alaska Pipeline System Right-of-Way Renewal Draft Environmental Impact Statement

Public Hearing Comment Form

Use this self-addressed form to submit your TAPS Renewal Draft EIS comments. Please give this completed form to one of the meeting hosts or take it with you and mail it. Make your comments, fold the form, tape it shut, place a stamp on the outside and drop it in the mail. *Comments must be postmarked no later than August 20, 2002.*

Please provide this information:

FOLD HERE

Name: Brian Parsons

Title/organization: Chief Engineer / Norquest Seafoods

Mailing address: PO Box 360

City: Cordova

State: AK Zip+four 99574-

FOLD HERE

E-mail (I wish to receive TAPS Renewal EIS information by e-mail at this address) _____

What would the economic impact to Alaskans be if pipeline operations were stopped and the pipeline shutdown? Alaska's budget realisticly is 6 billion dollars per year for state government and services provided by the state. Assuming 50% matching funds, 3 billion dollars a year would have to be paid by 600,000 residents. This amounts to a cost, per household of 4 of $20,000 per year. The average gillnet fisherman, this year will probably not make 20,000 this season. Where will the revenue come from? Taxes on oil amount to a $20,000/year benefit to all Alaskans. I support renewal of the Right of Way renewal.

149-1

FOLD HERE

WITHHOLDING OF PERSONAL INFORMATION

It is BLM's practice to make comments, including names and addresses of commenters, available for public review during regular business hours. Individuals may request that their home address be withheld from the public record, and BLM will honor such requests to the extent allowable by law. Circumstances may also arise in which BLM would withhold from the public record a commenter's identity, as allowable by law. If you wish BLM to withhold your name and/or address, you must state this prominently at the beginning of your comment. However, BLM will not consider anonymous comments. BLM will make all submittals from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety.

(7)

Responses for Document 00149

00149-001: The economic impact of TAPS termination (the No Action alternative) is covered in Section 4.6.2.19 of the FEIS.

WALTER COX

00150

Do We Need Citizen Oversight of TAPS?

Renewal of the Trans Alaska Pipeline System (TAPS) right of way has generated a great deal of discussion in Cordova over the past weeks and months, with editorials appearing in the paper, an investigative exposé on the current state of the pipeline system sponsored by an environmental watchdog group, and appearances on radio and at local meetings of a well known, albeit somewhat controversial, local environmental scientist – all calling for action and calling for it now. Since 1989 the potential of another catastrophic spill and the risks to the economy and well being of Cordova from another tanker spill have been widely recognized and debated while concerns over a pipeline spill have seldom been more than a blip on the radar screen of public concern. Now that it is time for the pipeline reauthorization, is this all just sound and fury from opportunistic environmentalists with an anti-oil agenda or do the everyday citizens of Cordova actually have vital interests at stake.

TAPS runs the 800 miles from Prudhoe Bay to the marine terminal in Valdez, starting and then ending at sea-level while crossing three major mountain ranges, averaging one stream, river or tributary crossing every mile, and climbing as high as 4700 feet as it transports approximately one million barrels a day of oil in a forty-eight inch steel pipe. TAPS represents and incredible technological achievement of remarkable complexity. It has also been an integral part of a cash-cow industry whose contributions to the state's coffers have made state sales and income taxes an unpleasant memory and provided a dividend payment to every Alaskan; more than five thousand dollars apiece, in cash, for the1999 to 2002 period alone. With those kinds of dollar signs, what's not to like? 150-1

The 1989 Exxon Valdez oil spill (EVOS) caused incredible damage, both in the regional coastal communities such as Cordova and to the enormously productive ecosystem that drives those communities economies, debates over the extent of these damages and the ensuing lawsuits rage even today more than thirteen years later. It is widely recognized that the spill wasn't solely the result of one irresponsible captain too drunk to find the channel, but rather EVOS was a systematic failure of a regulated and permitted operation that was viewed by some, much as TAPS is today, as a technological achievement, part of the same economic engine that powers the state's economy. The marine transportation leg of TAPS was an operation whose political momentum in the pre-EVOS era could not be denied, but it was also an operation with feet of clay. The corporate owners and operators were openly dismissive of the idea that something like the EVOS incident could ever happen, pointing to studies showing such a scenario as a one in 250 year probability. Some said even those long odds ridiculously overstated the possibility. The perceived unlikeliness of the event bred complacency, complacency bred sloppiness, and sloppiness set the stage for March 24, 1989. 150-2

Today we are faced with repermitting TAPS, a process that may represent the last meaningful opportunity to provide input into how our community and economy are protected from a pipeline spill for the next thirty years. For Cordova, this has far ranging implications. Twenty percent of the length of the pipeline is in the Copper River watershed, with some 76 crossings of the Copper River and its tributaries. What impact would even a small spill at one of these crossings have on the market prices for Copper River Kings and Reds? The impacts on the local fishing economy of a major spill in the 150-3

(6)

Copper are almost unimaginable. For some perspective of scale consider this; the smallest leak that the automated TAPS leak detection system can detect is 2,000 barrels per day, or some 84,000 gallons, and that under optimal conditions. What would be the impact to the Copper River Delta and fishing grounds of even one day's undetected discharge? 150-3 (Cont.)

The stakes are high for our community, everyone who lives and works here has a vested interest in the safe operation of the pipeline. Fisherman, clerk, bar owner, or environmentalist we all stand to lose if complacency is once more allowed to set the stage. It is therefore time for us to call on our communities leaders, the Mayor, our city council, our elected representatives in Juneau, as well as the candidates for office come November, to step forward and be counted. The time for citizen oversight is now. Make the establishment of a TAPS Regional Citizens Advisory Council a condition for the renewal of TAPS permits. The property comprising the right of way belongs to us one and all, both as citizens of the United States where the right of way crosses federal land and as Alaskans where the pipeline travels through state land. As citizens of the region we also bear considerable inherent risks to our livelihoods and subsistence traditions with the operation of TAPS; certainly, given all that we have at risk, we deserve such a voice. 150-4

Responses for Document 00150

00150-001: Thank you for your comment.

00150-002: Thank you for your comment.

00150-003: A discussion on the impacts to two tributaries of the Copper River (Gulkana and Tazlina Rivers) is given in Section 4.4.4.3. Additional details on the Copper River Drainage can be found in the text box “Oil Spill Planning for the Copper River Drainage" in Section .4.4.4.3.

00150-004: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

TAPS RENEWAL DEIS
PUBLIC HEARING

Valdez, Alaska

July 30, 2002

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P R O C E E D I N G S

(Valdez, Alaska - 7/30/2002)

HEARING OFFICER GEARY: All right, let's call this meeting to order, please.

All right, this public hearing is called to order. Good evening. My name is Dennis Geary and I am the Hearing Officer assigned to preside at this hearing. The purpose of this hearing is to receive public comments concerning the proposed renewal of the Right of Way for the Trans-Alaska Pipeline System. We invite comments on the following three documents related to that proposal:

1. The Bureau of Land Management Draft Environmental Impact Statement.

2. The Evaluation and Finding regarding subsistence under Section .810 of the Alaska National Interest Lands Act which are contained in Appendix E of the Draft Environmental Impact Statement.

3. The State of Alaska, Department of Natural Resources Commissioner's Statement of Reasons and Proposed Written Determination, Trans-Alaska Pipeline Right of Way Lease Renewal ADL63574.

It's not the purpose of this hearing to engage in a discussion or debate or to respond to questions about the Draft Environmental Impact Statement,

subsistence or the Commissioner's Determination or the Trans-Alaska Pipeline system.

In addition to myself, State and Federal representatives from the Joint Pipeline Office are here to listen to your comments. I'll let them introduce themselves at this table.

MR. BROSSIA: I'm Jerry Brossia with the Bureau of Land Management and I'd like to welcome you here tonight. With me is John Kerrigan, State Pipeline director. John.

MR. KERRIGAN: And also here is Kaye Laughlin, Department of Governmental Coordination.

MS. LAUGHLIN: Glad to be here, thank you.

HEARING OFFICER GEARY: Notice of availability of the Draft Environmental Impact Statement on the TAPS Right of Way Renewal appeared in the Federal Register on July 5th, 2002 in Volume 67, Number 129 at Page 44832. The State of Alaska also provided notice of the availability of the Commissioner's Proposed Determination on July 3rd, 2002. Notification about the date, time and location for this hearing as well as the six other hearings scheduled to receive comments on the Draft Environmental Impact Statement, subsistence and the Commissioner's Proposed Determination was announced in

the media, including newspaper, radio and the internet.

In addition, notices about the hearing were sent to individuals and organizations that have requested to be kept informed about this project. If you would like to be on that list, to receive information about this project, you can sign up at the registration table.

Both oral and written comments will be taken tonight. In addition, comments can be submitted to BLM by mail, fax, telephone, the internet or hand-delivered to the Joint Pipeline Office in Anchorage. The State will accept additional written comments sent by fax, mail or e-mail. We will accept additional comments received or postmarked by August 20th, 2002, which is the closing date of the public comment period for the Draft Environmental Impact Statement and the Commissioner's Proposed Determination. Information for providing additional comments is on the registration table outside. All oral and written comments received by the end of the public comment period will be treated equally and will be analyzed and considered in the preparation of the Final Environmental Impact Statement and the Commissioner's Final Determination. In addition, both the Final Environmental Impact Statement and the Commissioner's Final Determination will contain written responses to the

comments received on the respective draft documents.

In order to ensure a complete and accurate record of the hearing, it's necessary that only one person speak at a time. It's also requested that everyone remain as quiet as possible while the hearing is in process.

If you wish to speak, please sign in at the registration table outside first. Speakers will be called in the order in which they're registered. In the event that a speaker is not present when their name is called, we'll proceed and that person's name will be called again later. In order to give everyone who wishes to speak an opportunity to do so we have limited the time for each speaker to 10 minutes. This box light will help you know when your time is nearly up. The light will turn green as you begin your comments and will turn yellow when you have one minute remaining and will turn red when your time is up.

A court reporter will record the oral comments and prepare a verbatim transcript. If you have an extra written copy of your comments, please provide that to the hearing officer for any clarification that may be necessary in typing that transcript. In any event, your remarks will be recorded as you state them. If you wish to supplement your oral comments with

additional written material, please provide me with a copy of that material and it will be marked as an exhibit and made a part of this record.

All right, are there any questions regarding the hearing process?

Hearing none, we'll proceed with the hearing. The first speaker registered tonight is Stan Stephens. 00151

MR. STEPHENS: Thank you. You can put this for all three items, I think it fits all three.

Having testified in Cordova and now here in Valdez, I will attempt not to repeat myself. I would like to make it clear that we need more time to review and answer the DEIS. I think I agree with Ken Adams from Cordova, that a 180 day extension would be better. We need a citizen's oversight group for the pipeline and I stated that reason in Cordova. I also stated that we need a major audit of the North Slope, the pipeline and the terminal and the reasons why. Also we need a five year review of the whole delivery system grading how Alyeska is doing. 151-1 151-2 151-3 151-4

One of our Alaska governs stated that our natural resources were here on earth to make man's life better, that God had intended for man to make use of them. What he didn't say is that God also gave us

intelligence, heart and soul to use the resources in a safe and sound matter and to do it right.

There is no reason we can't use all our natural resources to the betterment of mankind, but in many ways we are using them to destroy the earth. There has been enough damage done to Alaska by oil. We need to halt this destruction and use these resources to continue to better Alaska and not destroy it.

In my opinion, your DEIS sets us up for another major catastrophic event here in Alaska -- catastrophic event here in Alaska.

And let me tell you why:

The JPO claims the Reliability Centered Maintenance (RCM) program will take care of all existing problems and future problems. I agree with the JPO, that to have operational safety and maintenance liability you have to have a way to identify the maintenance needs and a program to repair and deal with them. 151-5

What I see is we have 25 years of history of maintenance being deferred, budgets being cut, business structures constantly changing and every few years a reorganization which upsets previous direction and existing reliability.

Let me tell you why I think RCM won't work. You have to look at the past to determine the

future.

We were promised many things by Congress and by the oil industry in the original right of way discussions. Industry made promises they never intend to keep or carry out and Congress trusted them. Our representatives in Washington, D.C., today, put more trust in the oil industry than in the Alaska citizens. Environmentalists are considered a major hindrance to the development of this state by all three of them.

Back in the early right of way agreements, we were promised double-hulled tankers. The Exxon Valdez was a new ship. If it had a double-hull, how much less oil would it have spilled? Back in the '70s, during Governor Hammond's administration, Chevron sued the state on the double-hull issue and the state lost. Hammond never pursued it further. Congress could have overridden Hammond vs. Chevron, but they chose not to, even though they had made a promise to Alaskans. This court case gave the oil industry and Congress an easy out. Today, we have only one company actively building new double-hulls, the rest of the TAPS trade is old tired ships. 151-6

We were promised a clean environment. Air, water and land were all to be protected from spills with all the new, modern technology that the oil industry

had.

If you really think RCM will work, then maybe you can explain why for 20 years, the terminal was coughing out millions of tons of vapors which are very harmful to the community and Alyeska workers. They didn't care about Alaska, they care about the bottom line. They didn't put in vapor controls until they were forced to by law. The battle for tractor tugs went on for years before we finally got them. Terminal corrosion problems had to reach a critical point before they would address them. 151-7

With the aging pipeline, increase in paraffin and sludge and a colder, wetter oil, today the corrosion problem stretches from the North Slope to the terminal. What makes you think RCM is the answer to these existing conditions when the industry is constantly slashing budgets on an aging infrastructure?

I hope someone else will address the Ballast Water Treatment Plant and how it has badly polluted our air and water. It is another example of aging infrastructure suffering from corrosion and age, which is always put on the deferred list for future maintenance. Meanwhile, it continues to pollute our harbor. We should be working toward zero pollution going into our waters. 151-8

What makes you think an RCM program is the answer when the owners committee is constantly forcing Alyeska to slash its budget and downsize its work force? The rumor is that the owners committee plan to cut another 25 percent from the budget once the right of way agreement is signed. 151-9

We have an administration in this state that will do anything to protect the oil industry, even if what it does is harmful to Alaskan citizens. This year, the legislature threw out a court decision on Best Available Technology (BAT) and rewrote the law to protect the industry.

We all know the Bush Administration will do anything to protect big oil. The DEIS, about which we're here tonight to testify on is the perfect example.

Lets put the areas of trusting Alyeska on maintenance problems in perspective. Alyeska has always lacked the will to prioritize maintenance and carryout necessary work because of budget priorities. They are also always moving people around, putting people without experience in jobs that require experience. This is happening now. 151-10

Supervisors and leaders play musical chairs. Big reorganizations occur every couple of years. Budgets are slashed, work is deferred and it is 151-11

impossible to do a long-range plan because there's no stable source of funding for TAPS. Alyeska is constantly having to be reactive instead of proactive. The owners committee members also play musical chairs. There is little continuity. I've known very few of them that really understand the TAPS trade from Prudhoe to the terminal and it seems they either don't know or don't care about the consequences of insufficient funding for maintenance. 151-11 (Cont.) 151-12

What good is an RCM program if it is broke? 151-13

AFER recommends that a part of the review of the application for grant and lease renewal, the reviewers should convene an advisory panel to consider how best to provide a single, responsible, managing party. 151-14

We have had 25 years of broken promises and misstates under existing structures. It's time to change. If you have a single management system and stable funding, I think your RCM program could work.

I've already touched on the terminal problems, but lets start on the North Slope and work our way down.

A few years back, BP was dumping poisonous liquids down wells. This saved them money, as 151-15

they didn't have to pay to ship them out for treatment and so on, they were caught. Criminal action was brought against them and the Justice Department put them on probation. Since then, workers on the BP operation on the Slope have brought forth many maintenance problems that because of budget restraints were not being addressed. These amounted to safety violations that were in direct violation of their probation. The people who are charged with monitoring BPs probation chose to look the other way.

The law also requires there to be a leak detection system from the wells to Pump Station One. The State never enforced this. When one of the State regulators tried to enforce it, she was removed from her position. The State wanted her to look the other way. 151-15 (Cont.)

Do you really want us to believe that with these kind of relationships between the industry and the State and Federal government that the JPO has a chance to enforce compliance. BP is knowingly and willingly breaking laws and regulations on the North Slope and ADEC is knowingly and willing letting them.

We were told quite a few years ago that the microwave system would eventually have to be replaced, for it was not as reliable as it needed to be. Alyeska put in a fiber optic system but that also did not 151-16

meet the reliability standards they needed.

I learned the other day that a contractor doing roadwork had to reroute the cable, but couldn't because there was no cable available to reroute it. The contractor ended up digging the cable deeper and putting the road over it. They were also warned that they shouldn't drive in certain areas with heavy equipment because the cable wasn't buried deep enough and could be damaged. My question is, how does RCM address this point? 151-16 (Cont.)

I haven't had time to go through the 1,700 pages report but there's some things so far off base it makes me wonder if the whole report might not be this way. For instance, discussing a 143,000 barrel spill at the terminal, saying it would only two miles of beaches. I don't want to go into detail here but this is ludicrous. We need to be honest with each other and we need to be real. It's like the Oil Spill Response plans for the rivers, they're not real. 151-17

I want to touch one other area. The rest of my thoughts I will leave to other hearings. There are a number of suspension bridges that had cable tension measurements greater than the specified design tension or allowable load. I understand these critical areas were deferred because of budget. If this is so, how is RCM 151-18

going to work?

Are budget cuts also the reason we haven't done new core samples for soil changes at all the critical river and stream crossings? Are we going to peer review Alyeska inspections of the bridges and culverts with an independent contractor, not in any way connected to the government or Alyeska?

We just don't have the time to give this report the energy it deserves in the next 20 days. If the Interior Department doesn't see this, I hope the courts will.

I would like to end the way I started this evening. The pipeline runs through some of the most wonderful real estate that exists anywhere in the world. Our rivers and wetlands are the most productive for animals, birds and fish. If oil were to destroy the Valdez or Copper River drainages, and it could, it would not only destroy the lives of many people but it would also destroy the faith that God put in us as human beings.

Thank you.

HEARING OFFICER GEARY: Thank you, Sir. Dave Dengel.

00152

MR. DENGEL: Good evening. My name is Dave Dengel and I'm the city manager for the city of

151-18 (Cont.)

151-19

151-20

Valdez. I've had an opportunity to review the Draft EIS for the renewal of the TAPS Right of Way. And like Stan, I would like to request an extension as well. We haven't had the proper amount of time to do the thorough analysis of what is of interest to us. However, I would like to provide some comments. 152-1

The city of Valdez supports the proposed action to renew the Federal grant and State Right of Way lease for 30 years. The city council has adopted Resolution 02-56, which supports the renewal of the Right of Way for 30 years. Renewing the Right of Way grant for 30 years will provide economic stability, predictability and future economic projections for not only the TAPS owners but also the state and the municipalities along the pipeline corridor. There's little doubt that the Trans-Alaska Pipeline system has brought economic benefits to the city of Valdez and its residents. The operations of the city of Valdez are very dependent on money collected from the property tax from Alyeska. Approximately 75 percent of the money collected from property tax in Valdez comes from oil property.

Having said this, the city does have some issues with the Draft EIS and the Proposed Action and Determination of the Commissioner of Natural Resources. With the exception of last year, the city has experienced

a rapidly declining tax base. Between 1998 -- or 1988 and 2001, the assessed valuation of oil property in Valdez has declined over 50 percent. However, the level of throughput during that same time frame has declined just over 30 percent.

During the scoping meeting that was held here last fall I asked that the environmental impact statement consider the social economic impacts of this rapid decline of property values on Valdez. After reviewing the draft, I don't see where this has been addressed. Volume II, Section 4.3.19.3.5 social and local tax revenues discusses the very issues that Valdez is concerned about. The Draft EIS projects that the total state tax revenues from oil production will decline at an average rate of 5/10ths of a percent over the 30 year renewal period. It further states that oil revenues are projected to decline at a fairly rapidly rate over this same renewal period. Valdez has seen this decline and we live with it every day. Table 4.3-13, which is found on Page 4.3.75 projects that the local property taxes generated by tax will decline by approximately 4.8 percent annually. Today the TAPS -- the value of TAPS property within the city of Valdez is 658,944,010, using your projection of a 4.8 percent decline annually in 2034, the value is projected to be $150,645,778, that's a

152-2

152-3

decline of 77 percent.

The report goes on to say that although TAPS throughput is declining, that TAPS revenues collected by the local municipalities are expected to grow at an average rate of .8 percent. This is based on the assumption that State transfers to local government are not being affected by the declining straight revenues. Basically what they're saying is that the State and the Federal government will transfer money into the municipalities along the pipeline corridors to make up for that decline. I'm not sure if you have a letter from the state of Alaska that says that they'll guarantee to do that but in the last five years, state revenue sharing to the city of Valdez has declined by 50 percent. In 1996, the city received approximately $742,000 in state revenue sharing money. In 2001, Valdez received $376,000. There's never been an increase in those five years.

152-3 (Cont.)

Again, you're projecting that the city will lose 4.8 percent or there'll be a 4.8 percent decline in the oil property tax revenue and that the actual rate of non-oil property value will need to grow at 15 percent in 2004 to make up for that difference and in 2034 it will need to grow at a rate of 141 percent.

152-4

I'm a pretty optimistic person but I just

don't see that happening in Valdez. Over the past few years, non-oil property in Valdez has grown at approximately two percent per year and that's what we use in our projections in looking into future years for revenue for Valdez. I don't see it growing any faster. Like I said in 2004, based on your projections it needs to grow at 15 percent per year and by the year 2034 it needs to grow at 141 percent. That's what we call the Valdez Dilemma. Our population is staying fairly stable right now but our tax revenues are going down.

152-4
(Cont.)

In your report you say that North Slope production has regularly constituted more than 15 percent of the country's domestic crude oil production. It all flows through Valdez. Valdez provides services that the TAPS owners and shippers use and need. We have different costs than other communities our size because of the industrial complex across the bay do not have. We are in everybody's radar screen, figuratively and literally. What other community our size has a police force trained in bomb disposal. The local hospital is a necessary part of the infrastructure, not only for the community and its residents but also for TAPS operations. The nearest hospital is 125 air miles away and 310 air road miles away. In addition to these specialized services, we also provide the normal things that cities do, such as

libraries, parks and recreation and education. And all these things are the quality of life that makes Valdez what it is and Alyeska executives have told us that they have a hard time recruiting people to live and work in Valdez and that's why we need to continue providing the quality of life that we do.

As I mentioned before, during the scoping session that was held here last fall, I asked that the Draft EIS look at the economic impact of the devaluations of the pipeline and related properties and the impact that it has on the municipalities along the pipeline and, I don't believe that you've done that. On Page 4.3-82, it states with the availability of state funds for local expenditure programs together with moderate population and economic growth in the pipeline corridor region, impacts of the TAPS renewal on local public finances and public service employment in a region is therefore not expected to be significant. The reduction in oil property tax was addressed by the assumption that reductions in revenue would be made up somehow. The Draft EIS says the reduced local revenue would be made up by State and Federal transfers. Revenue from the State is declining and has been declining.

152-5

152-6

I believe that one option that needs to be considered by both the State and Federal government is

152-7

one of placing a floor on the value of the TAPS property for property tax considerations. Again, using your Draft EIS projections, the city will need to make up between 29 million dollars annually, all the way to 425 million dollars annually in assessed valuations to make up for the projected decline.

152-7 (Cont.)

The state of Alaska is not going to help Valdez with this because property taxes are a tarrifable expense that reduces the value of the well head price, therefore, reducing the amount of money the State receives on its royalty oil and severance taxes. The State receives most of its money from royalty and severance taxes, not from property taxes. The Draft EIS is taking the easy way out in dealing with the social economic impact of the devaluation of TAPS property. The value of TAPS for property tax purposes needs to be addressed and it most definitely will have an impact on the finances of the city of Valdez.

152-8

Again, Alaska Statute 43.56 is exempted out the Phillips L&G facility from taxation by the State. The Kenai Borough assesses this property and it's assessed as any other commercial property in the borough down there. The city of Valdez is asking and has asked for a number of years for similar consideration. We request that the Environmental Impact Statement recommend

152-9

and encourage the state of Alaska to establish a floor on the value of TAPS. This floor should not be lower than $3 billion. It is the expressed desire that the value of TAPS not go below this number while there is still oil flowing through it. 152-9 (Cont.)

Again, I'd like to request that there be an extension granted so that we can do a further analysis of what the impacts will be on the city's finances, not only in 2004 but out into 2034. 152-10

Thank you.

HEARING OFFICER GEARY: Thank you, sir. Tom Kuckertz.

00153

MR. KUCKERTZ: Thank you. My name is Tom Kuckertz and I represent the Prince William Sound Regional Citizen's Advisory Council. We'll be adding some comments to the ones that we gave in Cordova on Friday.

We note that the DEIS is a sizeable document, consisting of 1,700 pages with many hundreds of literature citations. And right or wrong, the DEIS may become the last word in publicly available information on TAPS. The Prince William Sound Regional Citizen's Advisory Council is concerned about whether the DEIS is complete and without errors. One obvious error in the DEIS pertains to economic benefits of oil spill. A 153-1

proper analysis of the economic data cited in Section 4.7 should indicate that on the whole there are no economic benefits to an oil spill and if there are no economic benefits to be had, any damage to fishing and tourism cannot be offset by such benefits.

Additionally, the comments in the executive summary stating that the most significant impacts will be economic can be true only if catastrophic spills are avoided. 153-2

The time period for public comment period is too short. The 1,700 pages in the DEIS and hundreds of literature citations including many personal communications cannot be assembled, read and analyzed in the allotted 45 days. The lack of availability of supporting documents, especially the personal communications, itself imposes delays inconsistent with a 45 day review period. Additionally, the time period chosen for citizen comment coincides with the peak times for tourism and fishing. Many interested citizens will be working their summertime businesses and will not have time to comment. RCAC as requested, via the Trustees for Alaska, that the comment period be extended by at least another 45 days. 153-3

Some issues were included from the scope summarily. The issues summarily included from the scope 153-4

or the DEIS may have significant environmental impact. For example, the ownership model is important because owners control the use of resources devoted to minimizing environmental impact. Impacts of various ownership models should be examined. In particular, the current ownership model allows for owners committee to micromanage operations in a manner that could have significant environmental impact. Recently the owners directed that the maintenance budget be cut by 10 to 25 percent without decreasing scope. Let me ask, how does one eliminate 10s of millions of dollars worth of maintenance without listing the scope and what is the environmental impact of this?

153-4 (Cont.)

153-5

153-6

Renewal conditions requiring that TAPS be operated and maintained in accord with the assumptions underlying the predictions of future impact are appropriate and very important. TAPS was new in 1978 and the policy of deferred maintenance likely had minimal environmental impact. Deferred maintenance on an aging system that was designed to have a life of 30 years has potentially much higher risk of significant and adverse impact. Any renewal of the grant and lease should include requirements for determining the present state of TAPS and a five year cycle verifying that it is being properly maintained. A complete and independent systems

153-7

153-8

audit will accomplish this verification. Additionally, regulatory enforcement tools sufficient to enforce regulatory compliance must be given to the regulators. Citizen's oversight groups such as RCAC have had substantial impact in lessening adverse impact, both from operations and from potential catastrophes, even industry has acknowledged the helpfulness of RCAC on numerous occasions. For example, RCAC has exercised leadership in having vapor controls installed on Berths 4 and 5. In developing and installing an ice detection radar in Prince William Sound. And having a fleet of five very large tugs to assist tankers, both in normal operations and in emergency situations in helping develop realistic contingency plans for response to spill scenarios. And in the developing in and helping develop geographic response strategies for protection and cleanup to specific sensitive resources. Impact of citizen's oversight group should be included. In fact, impacts associated with citizen's oversight groups can be compared with the impact associated with the absence of such groups because the pipeline itself does not have a citizen's oversight group.

The DEIS places considerable reliance on data provided by Alyeska and the owners and citation of TAPS owners 2001(A). This is the Draft Environmental

153-8 (Cont.)

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153-10

153-11

report provided by the owners and in citations of personal communications. Considerable amounts of data are taken from cited literature. Data from recent measurements appear to be used less frequently. Very little validation of data provided by the owners can be found in the DEIS. More recent literature has been overlooked. Studies funded by the oil industry seem to have been favored. Contradictory studies funded by others appear to have been overlooked. For example, NOAA and Auke Bay Laboratory Toxicity Studies indicate that North Slope crude oil is much more toxic than originally thought and that the toxicity is amplified by sunlight. Likewise, recent research funded by RCAC indicates that the dispersant now dedicated for use on an oil spill in Prince William Sound are likely to be ineffective and are much more toxic than originally thought.

153-11 (Cont.)

The DEIS appears to be primarily concerned with designed basis operation, normal operations appear not to have been reasonably considered in assessing impact. For example, the Ballast Water Treatment Facility, which is a gravity separation of crude oil from ballast water are having problems with waxy solids that prevent timely removal of the waxy solids and recovered crude oil from the process. The waxy buildup is a recurring problem in the '90s tanks

153-12

along with other scheduled maintenance has limited the operational capacity of the gravity separation process to less than 50 percent of its design. The impacts associated with the operation of processes away from their design basis need to be assessed. 153-12 (Cont.)

Alyeska's historic business model is to make operational changes and to defer maintenance based on bottom-line priorities. The increased risk associated with deferred maintenance, including that of catastrophic failure due to corrosion needs to have its environmental impact considered frequent reorganizations, mainly less qualified personnel responsible for various operation, the increased risk associated with untrained and inexperienced personnel also needs assessment. For example, the reorganization now being implemented has combined the responsibility for operation of marine assets. This is the loading of tankers and operating the Ballast Water Treatment Facility under a single individual who previously had neither responsibility for nor detailed knowledge of the processes. 153-13 153-14

The connection between raw data and impact conclusion is not clear in many instances. For example, the DEIS reports a fleet of 26 tankers will reduce in size to eight to 10 tankers by 2020. Currently there are 25 tankers in the fleet including seven with 153-15

double-hulls. Operation of eight to 10 tankers in 2020 is predicted to result in a substantial reduction in the annual probabilities of accidents and spills. Is risk really reduced if a minimal number of tankers is attempting to carry one million barrels per day and the owners are resisting further investment in TAPS anticipating a shutdown in 2034. 153-15 (Cont.)

Compliance with environmental regulations is cited as evidence of minimal impact. Environmental impact and regulatory compliance are not equivalent. Impact assessment needs additional metrics based on up to date science and technology. Special vigilance is needed when industry has assisted in developing the regulations and the exemptions thereto. For example, Alyeska NPDES permit for the Ballast Water Treatment Facility has upper discharge limits that can be met without much challenge. 153-16 Well, Alyeska's Title IV, air quality permit application has been pending without action at the Alaska Department of Environmental of Conservation for five years. In the interim, Alyeska has been operating the Valdez Marine Terminal under a more liberal prevention of significant deterioration permit. At the suggestion of Alyeska and industry, the National Emission Standard is currently being proposed by EPA excludes emissions from Alaska North Slope crude oil and from the Ballast Water

Treatment Facility. What the result is that a source emitting 25 tons per year of hazardous air pollutants is defined by EPA to be a major source. Yet the proposed rule exempts the source, the VMT, exceeding a threshold by a factor of five to 10. Even the DEIS contains data indicating that hazardous air pollutants exceed the major source threshold by a factor of five. 153-16 (Cont.)

Citizens have had great difficulty in looking at the TAPS operational and maintenance processes because Alyeska claims that such information is proprietary to its business activities. JPO has related to RCAC its own difficulties in getting the information it needs to assess compliance with its regulations and the laws it is to administer. It's unclear how the environmental impact of a system as complex as TAPS can be properly assessed if complete information regarding operations and maintenance is withheld from those making the assessment. For example, it is acknowledged that the reliability center maintenance paradigm is appropriate to TAPS. We do not know if it's been applied in a systematic manner to all processes and subsystems and we do not know the status of action plans to implement the specific maintenance strategies identified for the systems to which the methodology has been applied. 153-17

Information that allows quantification, 153-18

the audit of the present state of TAPS is needed to verify that the assumptions of the impact cited in the DEIS remain valid. It should be a condition of renewal that the information be made available to regulators and citizens alike

153-18 (Cont.)

And I'll stop at that point and thank the hearing officer for allowing us to give our information.

HEARING OFFICER GEARY: Do you want to include that in the record?

MR. KUCKERTZ: I will.

HEARING OFFICER GEARY: I'll go ahead and attach this into the record as an exhibit at the end. Thank you, sir. Walter Parker.

00154

MR. PARKER: Good evening. I'm Walter Parker, board member, the Alaska Forum for Environmental Responsibility. This testimony is in addition to that which I delivered in Cordova on 26 July.

In that testimony I pointed out the need for the audit on the technical and engineering aspects of TAPS, a thorough going audit on the need for the citizen's review council. On the need to expand the comment period dramatically. After what I've heard so far, 180 days would seem to be a minimum rather than a maximum now.

154-1

154-2

Tonight, I want to focus on the human

factors and pipeline and tanker operations and the need for strict training and evaluation regimes and oil transportation operations. One of the great failures during construction of the TAPS, where I was intimately involved, as you know, was the fact that most employees were given only one days orientation before being sent out on the pipeline. The initial hires to staff QA/QC were often new graduates of southern universities with little or no Arctic or sub-Arctic experience. Many entrusted with engineering oversight had little experience with permafrost and other Arctic problems and they were provided with little or no training in those areas thus there were several occurrences during construction of great errors in handling permafrost problems.

It was hoped and expected that after construction and a stable work force would ensure that there would be a relatively error free environment. This seems to be the assumption of the DEIS. Yet, as pointed out in AFER's reports by Richard Fineberg and early reports by others, Alyeska is far from operating in an error free environment. Failure to manage several restarts has resulted in many small oil spills, failure to respond to a bullet hole in the pipeline resulted in a 35 hour spill that should have been closed in much less

154-3

time. This is not particularly the fault of the Alyeska personnel in the field who have to do the work, it is the fault of the budgets which are provided by the owner companies to accomplish the task.

154-3 (Cont.)

Alyeska and its owners were taken to task by the Alaska Oil Spill Commission, which I chaired for failure to maintain the response program that was in existence in 1977 when the pipeline and terminal opened and that was systematically cut back on and disbanded during the period from 1980 to 1989 when after the Chevron versus Hammond case was lost by the State due to incompetent representation. At least that's what the attorneys I hired at the Alaska Oil Spill Commission said.

154-4

Requirements placed in OPA90 and in State legislation plus the presence of the Regional Citizen's Advisory Council have ensured a much higher ability to respond to oil spills in Prince William Sound. But even there, the Supreme Court of Alaska upheld a citizen lawsuit finding that the State Department of Environmental Conservation did not properly implement the best available technology statute.

154-5

The reaction, as pointed out earlier of the State administration was to encourage the Alaska legislature to pass a bill authorizing a second rate

technology standard which the legislature obliging did. Both the Federal Right of Way grant and the State Right of Way lease have a similar high quality standard for response equipment that has never been enforced. None of Alyeska's response equipment is designed to operate in our fast current rivers despite Minerals Management Service testing of skimmers in 1996 for the U.S. Coast Guard showing several effective high current skimmers. However, the pressures brought on response programs in the Sound have not been present on the pipeline. The DEIS makes no effort to explore the need for new technology or expand response team training in critical areas such as river crossings. There's no push to pick up on the host of different chemical responses that came forward during the Alaska Oil Spill Commission's hearings, indeed, even in Prince William Sound during that substantial part of the year when weather precludes mechanical recovery, why the backup systems are little different from what they were in 1989.

154-5 (Cont.)

154-6

The tankers, with the addition of the two double-hulled millennium class tankers by Phillips to the Valdez fleet obscures the fact that there are 26 or so aging tankers still in use and only gradually replaced until 2015. Without doubt, the millenniums are the best oil tankers in operations anywhere as far as their

154-7

technical capabilities are concerned. However, no ship is any better than the crew that operates it. We tried to take care of part of this in OPA90, a great deal remains to be done. The effort launched several years ago to introduce an evaluation of human factors as they effect risk in oil tanker operations was allowed the die at birth after an acrimonious hearing in Seattle. Ridge response training is a word of the addition but this is not expanded on in the DEIS nor any improvements to training programs scoped out or suggested. There is no pressure from industry or the state of Alaska to push forward the program suggested and prevention through people and the program begun by Vice-Commandant of the Coast Guard, James Card, several years ago. Jim Card was the one who initiated the double-hull, double-bottom argument in tankers and I and a number of my colleagues joined him and it took us 20 years to get them in OPA90 and 30 years to get the first one launched. But that is a long story, a 30 year story. 154-8

In my days in air traffic control, 15 percent of the personnel budget was spent on training and recertification. How much are the Alyeska and government budgets are spent on mitigating the risks of inadequate training? 154-9

The evaluation programs for the pipeline, 154-10

both in operations and maintenance do not seem to match the risks which this operation presents to the Alaskan environment. If you look at the downstream river systems that are where the pipeline first impacts upon them. You're looking at almost 35 percent of Alaska's habitat, marine habitat, possibly more. I've done some measurements but have a lot to do still. And that at it's speak, also spent 15 percent of the budget on independent program evaluation, when it stopped doing that during the 1980s, Challenger resulted. There is no evidence of independent evaluation called for in the DEIS, the JPO provides oversight, not evaluation insofar as can be determined from the records.

154-10 (Cont.)

In addition to the audit called for in Cordova the pipeline's physical status and audit is also needed of operation and training by a qualified independent source.

154-11

Thank you.

HEARING OFFICER GEARY: Thank you, sir. John Cerutti.

00155

MR. CERUTTI: John Cerutti. I am a civil engineer licensed to practice in the state and my license number is 820.

As an individual I certainly can't review the DEIS but a great deal of what I've heard so far has

merit. My question is why does Alyeska need to pay two and a half million dollars annually for another organization to be critical of the company? Why shouldn't those who desire such an oversight committee pay for it themselves. I have no problem of that arrangement. 155-1

Mr. Chairman, I yield the remainder of my time to the next speaker.

HEARING OFFICER GEARY: Thank you, sir. Richard Fineberg. 00156

MR. FINEBERG: Good evening. Before you begin the clock, may I ask your leave for two procedural questions. I ought to have brought them up at the start, number 1, in view of the concern that has been expressed by some citizens about lack of notification, could you specify in the future, the newspaper and the publication dates? We have been misinformed in the area in trying to fill in the gap that you have not provided and it actually cuts both ways. Some of us believe there was no notification when there was some and what I believe to be the actual notification dates seems grossly inadequate but we don't have a clear record as the members of the public. So if you could, in the future, depart from the glittering generalities that characterize the DEIS and the State's Proposed Determination that would be great.

Number 2, could you please identify the parties who are receiving the testimony tonight? I believe you went through without giving their names unless I was just missing that walking in?

HEARING OFFICER GEARY: No, I think you missed that, they were.

MR. FINEBERG: Oh, okay.

HEARING OFFICER GEARY: And to be quite clear, the party that is receiving the testimony tonight is the court reporter sitting next to me, that's why we're gathered here. Any of the members of the Joint Pipeline Office who might be present are here to also hear your testimony but the purpose of this hearing is to record and get a verbatim record of the comments made and so, quite frankly, my concern is that the court reporter get it all down and then be provided to the Joint Pipeline Office and others for them to review and answer the questions that you've brought up.

MR. FINEBERG: That's a quite legitimate concern. My concern, as a member of the public, is to know who did or did not hear what I had to say.

HEARING OFFICER GEARY: Sure. And I think your comments about the notification are well founded and we'll take that up at the next hearings.

MR. FINEBERG: Thank you very much for

your patience in that.

HEARING OFFICER GEARY: Sure.

MR. FINEBERG: I am Richard Fineberg from Ester and I am testifying tonight on behalf of the Alaska Forum for Environmental Responsibility. This statement supplements the testimony I presented at the public meeting in Cordova on Friday night, July the 26th.

I would like to subscribe to virtually all of the comments I have heard tonight, not all of them but almost all of them. I think they provide very good confirmation and ratification of issues raised in Cordova Friday night.

I stated Friday night that on reviewing the DEIS and the documents supporting the State's Proposed Determination, I was surprised and chagrined to realize how little the folks from Argonne and the preparers of the State document seemed to have heard of what we presented in the scoping meetings. In the end, I hope we will not gather 12 years from now as we did in 1989 to find out what went wrong 12 years earlier. Tonight I wish to speak to two points. 156-1

First, I wish to submit for the record a copy of my recent report, the Emperor's New Hose, How Big Oil Gets Rich Gambling with Alaska's Environment. Many of the issues discussed in the report, as well as five of 156-2

the report's six recommendations, were presented formerly to this process during the scoping meetings in September and October of 2001. As I stated, I'm, therefore, disappointed that neither the State nor the Federal documents supporting a grant and lease renewal have addressed the substantive issues in that report or the recommendations that followed from the discussion of those issues. 156-2 (Cont.)

The marked difference between the material contained in that report and the conclusions of the documents supported in grant and lease renewal is one of the reasons that the Alaska Forum has renewed its call for an audit of TAPS by a professional and independent body. 156-3

The second point I wish to discuss with you tonight is the magic bullet that is supposed to cure all problems on TAPS. A program called Reliability Center Maintenance (RCM). One of the most important of the assumptions in the various boilerplate statements supporting grant and lease renewal relates to the TAPS maintenance program and the RCM, which JPO intends to be the guide and the philosophy for future maintenance on TAPS. The conclusion to the DEIS executive summary states that continued operation of the pipeline should have minimal future environmental impacts based on the 156-4

knowledge of the impacts over the last 25 years and the assumption that mitigation measures and upgrades to the monitoring systems used to identify potential problems and leaks. Vigilant oversight by the regulatory agencies and an aggressive maintenance program all will continue to be incorporated. Those are all assumptions. This view is echoed by the State Pipeline Coordinator's Reports, which says the TAPS facilities are routinely maintained and upgraded to ensure safe and efficient operation and to minimize the likelihood of releases.

156-4 (Cont.)

156-5

As you have heard many of this before, so I will not give you the recitation, many of us believe that just ain't so. The importance of RCM to the maintenance process is evident in both the State and the Federal renewal documents. For example, the DEIS ends its introductory section on the history of the pipeline in these words. More recently the JPO has enhanced its efforts to ensure pipeline integrity and safety through an RCM program. The reliance on RCM by JPO is evident throughout both documents. I need to try to condense this because I do want to give you five reasons why I believe that the magic bullet is very liable to fail.

156-6

JPO notes that RCM has been used at the VMT since '97. Based on review of that record from afar, it appears that during this period both worker and

156-7

citizen complaints, which were initially denied by Alyeska and JPO but later proven to be valid identified critical problems effecting the safety of operations long before the RCM process. That case, by the way, is laid out from the Valdez Marine Terminal in some detail in Pages 56 to 63 of my report. 156-7 (Cont.)

Now, the five reasons it's liable to fail. There's been a constant dialogue between JPO and Alyeska, in which Alyeska seeks to simplify or streamline RCM. Most recently JPO reported that Alyeska will use a streamlined RCM process. But the RCM process according to its designers is a process on which you cannot cut corners. The process cannot be hurried. It is highly structured and depends on that structure. What is going on here. 156-8

Number 2. There is no historical or theoretical basis to assume that an industrial management process can prevail against the inexorable pressure of the TAPS owners discussed above and by others, not just because I deleted it from my remarks but others have raised the point, to cut costs. The creators of RCM specifically warn that the process will not work if it is conducted by outsiders because the operational users must buy in. As I indicated in the first point and it's clear from the JPO/MOAs, the written, the detailed reports, 156-9

that this is a JPO process that Alyeska has not fully endorsed the same way the JPO has. And Alyeska specifically has agreed to use streamlined RCM

156-9 (Cont.)

If I may, I would like to get the other two points on the record, if you will bear with me. I think as a stutterer, I really hate to do that but I would be more concise if I were capable.

So JPO, as an outside entity is attempting to use the RCM program. I think I can't count my bullets very well, if that weren't -- if three strikes against RCM were not enough there is this point, the focus of RCM is physical assets but many of the critical management problems on TAPS, the chronic problems with restart, for example, are associated with operating procedures and human factors rather than equipment failure. These problems may fall beyond the scope and purpose of RCM.

156-10

I would like to join those who have noted the many substantive errors in the renewal documents. It would take much of the night to catalog them and I resent the fact that in 45 days we have to wade through the voluminous documents and cross-check those errors.

156-11

The forum has been concerned over the years with ensuring the safe operation, maintenance and management of the pipeline. I have not touched on many

of the problems associated with the transporting of oil from the North Slope of which only some are documented in the report I will submit tonight.

I therefore join in the request of many concerned citizens for an extension of the document review period and an independent audit of the pipeline and the oversight of the pipeline as well as consideration of the six recommendations made in the June 2002 report, most of which were summarily dismissed with no valid comments in my estimation by the DEIS and simply were not considered in the State's reports. 156-11 (Cont.) 156-12

Thank you very much.

HEARING OFFICER GEARY: Okay, do you have the report to submit?

MR. FINEBERG: Yes, I do.

HEARING OFFICER GEARY: Did you also want to submit your comments?

MR. FINEBERG: I'm going to need to do some reediting of them.

HEARING OFFICER GEARY: That's fine. All right, I'm going to mark this as Exhibit No. 11, the Emperor's New Hose.

(Hearing Exhibit 11 marked)

HEARING OFFICER GEARY: Bob Henrichs. 00157

MR. HENRICHS: Good evening. Thank you

for the opportunity to testify. My name is Bob Henrichs. I was born in Cordova and have lived there for the past 59 years. I am presently the president of the Native Village of Eyak, a Federally-recognized tribe. Before I get into the review of the Environmental Impact Statement, as you know it's a fairly large document and our environmental and natural resource staff is going through it line by line and we will be getting comments to you as we go through it. This is in addition to the comments I made in Cordova last Friday.

But I want to speak on the Prince William Sound Regional Citizen's Advisory Council. It does not speak for the Native Village of Eyak. We are a Federally-recognized tribe with a government to government relationship with the United States and their agencies and the state of Alaska. We have no need nor a desire for RCAC to speak for us. RCAC was formed to beat the deadlines of OPA90, it was not formed under the OPA90 guidelines. It is an alternative organization. We feel it should be decertified and a new organization should be formed following the strict guidelines of OPA90. 157-1

Now, I'll get into my comments on the Environmental Impact Statement. Section 3.25.1, Alaska Natives sociocultural systems describes indigenous sociocultural systems in much of the United States as a 157-2

distant memory and states that the main reason for the resilience of Alaska Native sociocultural systems is the late arrival of non-Natives in Alaska. We disagree with this characterization pointing to early contact between Russians and non-Natives and crediting the reason for the continuing existence of the Alaska Native culture to the persistence and strength of the people, not simply a lack of outside contact. This statement is typical of those made throughout the sociocultural system section that belittles and discredits tribes and their organized forms of government. 157-2 (Cont.) 157-3

Section 3.2.25.1 states Alaska Natives sociocultural systems are intersected by TAPS. This is incorrect. Sociocultural systems include beliefs, ideas and behavioral patterns. They are not something physical that can be crossed. The TAPS crosses the traditional and customary use areas, homelands and territories of Federally-recognized tribes. 157-4

The Draft Environmental Impact Statement focuses on brief historical descriptions of tribes rather than current information on Federally-recognized tribal governments. This must be corrected. The Draft EIS must recognize Federally-recognized tribes, their sovereign status and their rights in the TAPS renewal. 157-5

We object to the use of the term evolved 157-6

to describe an Alaska Native sociocultural systems. This is a curious choice of words to assign to matters pertaining to culture and implies a progression from simple to complex or specialized. All cultures are ever changing and may begin as a complex set of beliefs and change to become less so. 157-6 (Cont.)

The Draft EIS examines the impact of TAPS on the state economy including the impacts on Alaska Native corporations and on subsistence activities. This must include impacts to Federally-recognized tribes. 157-7

Section 3.25.1.1 states that Alaska Natives groups include mobile vans of varying composition. This characterization is not accurate. Seasonal occupation of sites is more accurate. Tribes were not and are not nomadic, which mobile vans implies. In additional seasonal sites commonly had more than 100 occupants not just simply smaller aggregations and nuclear families as the Draft EIS states. 157-8

Sociocultural systems are characterized as egalitarian. This is incorrect. Tribes chiefs, slaves, clans and wars. Tribes can include complex political systems. To characterize them as egalitarian is a gross oversimplification. There are no sources cited for these characteristics except for the Handbook of North American Indians. This is inaccurate. 157-9

Throughout this section, Alaska Native groups and 157-10

villages are referred to repeatedly. Federally-recognized tribes are conspicuously absent. This appears to be a deliberate attempt to diminish their importance and undermine their authority. 157-10 (Cont.)

Section 3.25.1.1.1 on Chugach/Alutiiq states there is an absence of detailed information on the traditional Chugach sociocultural system. This is completely inaccurate. An entire Alutiiq museum exists in Kodiak that is devoted to an examination of the Alutiiq culture. Chugach Alaska Corporation also operates the Chugach Heritage Foundation that has devoted years to studying Chugach Alutiiq prehistory and inventorying cultural resources in Prince William Sound and other areas. 157-11 This section also incorrectly refers to Chenega and Tatitlek as modern communities. These are Federally-recognized tribes governed by elected tribal councils. 157-12 The section also states that the Chugach Alaska Corporation was formed to accommodate interests of the Chugach people. This is an incorrect characterization of why the corporations were formed. Corporations were formed as part of the settlement of land claims, not as a solution to all interests of Alaska Native people or tribes. 157-13

Table 3.25-2 is incorrect in stating that there 286 Natives in Cordova, most probably Chugach. The 157-14

Native Village of Eyak has over 500 tribal members who trace their ancestry to numerous clams and/or tribes including Tlingit-Haida, Tsimshian, Aleut, Alutiiq, Athabascan, Eyak, Chugach Eskimo, Yup'ik, Sugpiat and Inupiat. The table also incorrectly states that there are only five Eyak remaining in 1985. The Native Village of Eyak tribal members who are Eyak descendants currently number over 100 according to respected elders. To state that Eyak were largely incorporated into Tlingit is incorrect. Further, we object to the use of the terms never more than, never greater than and declining to fewer than throughout the table. This appears to be an attempt to minimize the numbers of indigenous people so that the impact of TAPS can be minimized as well. 157-14 (Cont.) 157-15 157-16

Thank you for your time.

HEARING OFFICER GEARY: Thank you. Thank you for your comments. I'll add these as Exhibit 12. 00158

(Hearing Exhibit 12 marked)

HEARING OFFICER GEARY: Donald Kompkoff.

MR. KOMPKOFF: Howdy. My name is Donald Pete Kompkoff, Sr., and I was born and raised in Chenega, Alaska. And during the period March 24 Exxon Oil Spill, the first thought that came into my mind, oh, no, and the -- what came to my mind was if there was some way we had deflection booms on each major point and this would help 158-1

the oil deflect out to the ocean and it could deal with that out there, out in the sea instead of on the beaches and on the rocks in the Sound. Also by putting small oil barges in Chenega and Tatitlek for quick responses in oil recovery as the TCC in Valdez are already trained for oil spill responses and on land and sea and rivers. And also double-hulled tankers would be great. If they could put a boom system to protect the oil boats during the winter during rough water across the oil spill because I worked over there and it gets pretty rough for those boats that are putting the boom around the tankers. Some of the ERVs churn waters to help the boom system to protect the small boats in the Valdez Marine Terminal.

158-1
(Cont.)

That's all. Thank you.

HEARING OFFICER GEARY: Thank you, sir. I'll add those to the record as Exhibit 13.

(Hearing Exhibit 13 marked)

HEARING OFFICER GEARY: All right, at this time we're going to go ahead and take a 10 minute break. If there's anyone else who wishes to speak, please sign up at the outside table and when we commence we'll start again. We're in recess for 10 minutes.

(Off record)

(On record)

HEARING OFFICER GEARY: All right, I'm

going to call the hearing back to order. During the break I was provided copies of the comments from Walter Parker and from Stan Stephens and so I've attached Mr. Parker's comments as Exhibit 14 and Mr. Stephens' comments as Exhibit 15.

(Hearing Exhibits 14 and 15 marked)

HEARING OFFICER GEARY: I have no other speakers signed up to make presentation at this hearing. Is there anyone else who is prepared to make a presentation?

Hearing none, I will adjourn the meeting to be reconvened in Glennallen at 7:00 p.m., tomorrow night. This meeting is adjourned.

(ADJOURNMENT)

C E R T I F I C A T E

UNITED STATES OF AMERICA)
)ss.
STATE OF ALASKA)

I, Joseph P. Kolasinski, Notary Public in and for the state of Alaska, and reporter for Computer Matrix Court Reporters, LLC, do hereby certify:

THAT the foregoing Bureau of **TAPS Renewal DEIS Hearing** was electronically recorded on the 30th day of July 2002, in Valdez, Alaska;

That this hearing was recorded electronically and thereafter transcribed under my direction and reduced to print;

That the foregoing is a full, complete, and true record of said testimony.

I further certify that I am not a relative, nor employee, nor attorney, nor of counsel of any of the parties to the foregoing matter, nor in any way interested in the outcome of the matter therein named.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 9th day of August 2002.

Joseph P. Kolasinski
Notary Public in and for Alaska
My Commission Expires: 04/17/04

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Responses for Document 00151

00151-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00151-002: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00151-003: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00151-004: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00151-005: The TAPAA and the Federal Grant of Right-of-Way provide the BLM with all of the authority it needs to oversee operation of the TAPS and to impose strict and enforceable requirements upon APSC to comply with necessary operational procedures. The JPO and APSC have entered into memoranda of agreement committing APSC to using reliability centered maintenance (RCM) protocols to form the basis of its maintenance decision-making and establishing expectations from its use. See Section 4.1.1.7 for additional discussions on RCM.

00151-006: Shortly after the Exxon Valdez oil spill, a National Transportation Safety Board report (NTSB, 1990) stated that had the Exxon Valdez been fitted with a double hull, "the risks of oil spills owing to collision or grounding would have been significantly reduced." The amount of oil outflow assuming a double-hull for the Exxon Valdez would be highly speculative and is not estimated.

Numerous improvements have been made that will reduce the likelihood of a major marine transportation accident and/or the expected outflow given such an accident. These measures fall into two main classes:

(1) Improvements in spill prevention and response capability for Prince William Sound (PWS) made by APSC, including the creation of the Ship Escort Response Vessel System (SERVS).

(2) Phase-in of double-hull tankers under OPA 90.

OPA 90 established a schedule for closing U.S. ports to single-hull tankers. By 2015 at the latest, all tankers calling at the Valdez Marine Terminal will have double hulls. In fact, according to projections made by the U.S. General Accounting Office (GAO, 1999) the last of the present tanker fleet will be phased out in 2013. Thus, for at least 20 years of the 30-year ROW renewal period (2014 to 2034), the ANS tanker fleet will consist exclusively of double-hull tankers.

00151-007: Reliability-centered maintenance (RCM) would not be applicable to issues requiring vapor control on tractor tugs. Nevertheless, the processes by which such requirements were imposed remains in place. Pipeline corrosion control has been aggressively managed, albeit more through the regulatory and stipulation process than through RCM. Problems like terminal corrosion may very well be a good candidate for RCM analysis, although replacing power vapor pipe with stainless steel pipe and refining fire water and ballast water lines have addressed some immediate problems.

00151-008: The operating record, including effluent monitoring conducted by APSC in accordance with its NPDES permit, shows that discharges from the BWTF have been within the limits established in the NPDES permit. The effluent limits are discussed in Section 3.16.4 and in Section C-5. Impacts to the marine ecosystem resulting from such discharges are discussed in Section 4.3.8.1. The discharge limitations contained in the NPDES permit were established by the permitting authority (EPA) and were believed to be sufficiently protective of public health and the environment. Those limits are subject to change, based on all available evidence of impact. The NPDES permit renewal process provides a mechanism for EPA and state authorities to review available information to determine if changes to the effluent limitations are necessary to reduce impacts on the public health and the PWS marine ecosystem.

With respect to "deferred maintenance, all major TAPS components, including the BWTF, are subject to evaluation under the Reliability-Centered Maintenance (RCM) program. That program evaluates the consequence of failure of any given TAPS subsystem and directs the development of preventative maintenance activities sufficient to preclude such failures when the consequence of failure would lead to adverse environmental or public health impacts.

While we recognize that the PWS RCAC has recommended that NPDES permit levels for the BWTF be reduced, the EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms. PAH accumulation was detected in mussels used to monitor water quality in Port Valdez as part of a PWS RCAC-sponsored monitoring program (Salazar et al. 2002). In that study, it was found that all measured concentrations of PAHs in water and estimated on the basis of bioaccumulation in mussel tissues indicated that the concentrations of PAHs in Port Valdez waters are in the low parts-per-trillion range, well below the levels that have been associated with adverse effects in herring and salmon embryos (Salazar et al. 2002). In addition, Salazar et al. (2002) did not detect reductions in overall growth of caged mussels that could be attributed to PAH burdens. Instead of stating that BWTF effluent is unlikely to impair sediment quality, Section 4.3.16.1 the EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the recent monitoring efforts. (See Section 4.9 of the FEIS for the references cited here).

00151-009: Under the Federal Grant, APSC is responsible for maintaining and operating TAPS safely and in a manner that is sufficiently protective of public safety and the environment. (See Grant Stipulation 1.21.1.) Except for contingency planning where Alaska regulations specifically call for an evaluation of the adequacy of resources (equipment as well as personnel) by regulatory authorities, APSC alone has the responsibility for developing appropriate management practices and operating procedures and committing adequate resources to successfully implement those systems. However, in its oversight capacity, the JPO does have the opportunity to evaluate the adequacy of APSC's operating practices and does consider resource commitments (both equipment and personnel, including levels of training) as part of the root cause analyses it performs for all identified operational deficiencies. The JPO also has authority to require APSC to develop and submit for JPO approval, a corrective action plan that may also include implementing resources. It is inappropriate for the JPO to direct the application of specific types and amounts of resources for TAPS operations. APSC retains the sole responsibility for committing sufficient and appropriate resources to meet its obligations under the Federal Grant and its stipulations.

The JPO and APSC have entered into memoranda of agreement committing APSC to using RCM as the basis for APSC’s maintenance decision-making and establishing expectations from its use. See Section 4.1.1.7 for additional discussions on RCM.

00151-010: JPO work plans have coupled “trust” with verification. The JPO’s findings, notices, orders, and regulatory actions are tools used to enforce corrective actions. Under the Federal Grant, APSC is responsible for maintaining and operating TAPS safely and in a manner that is sufficiently protective of public safety and the environment. (See Grant Stipulation 1.21.1.) Except for contingency planning where Alaska regulations specifically call for an evaluation of the adequacy of resources (equipment as well as personnel) by regulatory authorities, APSC alone has the responsibility for developing appropriate management practices and operating procedures and committing adequate resources to successfully implement those systems. However, in its oversight capacity, the JPO does have the opportunity to evaluate the adequacy of APSC's operating practices and does consider resource commitments (both equipment and personnel, including levels of training) as part of the root cause analyses it performs for all identified operational deficiencies. The JPO also has authority to require APSC to develop and submit for JPO approval, a corrective action plan that may also include implementing resources. It is inappropriate for the JPO to direct the application of specific types and amounts of resources for TAPS operations. APSC retains the sole responsibility for committing sufficient and appropriate resources to meet its obligations under the Federal Grant and its stipulations.

00151-011: JPO work plans have coupled “trust” with verification. The JPO’s findings, notices, orders, and regulatory actions are tools used to enforce corrective actions. Under the Federal Grant, APSC is responsible for maintaining and operating TAPS safely and in a manner that is sufficiently protective of public safety and the environment. (See Grant Stipulation 1.21.1.) Except for contingency planning where Alaska regulations specifically call for an evaluation of the adequacy of resources (equipment as well as personnel) by regulatory authorities, APSC alone has the responsibility for developing appropriate management practices and operating procedures and committing adequate resources to successfully implement those systems. However, in its oversight capacity, the JPO does have the opportunity to evaluate the adequacy of APSC's operating practices and does consider resource commitments (both equipment and personnel, including levels of training) as part of the root cause analyses it performs for all identified operational deficiencies. The JPO also has authority to require APSC to develop and submit for JPO approval, a corrective action plan that may also include implementing resources. It is inappropriate for the JPO to direct the application of specific types and amounts of resources for TAPS operations. APSC retains the sole responsibility for committing sufficient and appropriate resources to meet its obligations under the Federal Grant and its stipulations.

00151-012: Thank you for your comment.

00151-013: RCM indeed required implementation and proper execution. Towards this end, the JPO and APSC have entered into a series of memoranda of agreement to clarify expectations/requirements. See Section 4.1.1.7 for additional discussions on RCM.

00151-014: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00151-015: The regulation of BP activities on the North Slope is separate and apart from TAPS operations at Pump 1. The impact of BP activities on the North Slope is discussed in the cumulative section of the DEIS.

00151-016: The fiber optic system is currently used for used for noncritical voice and data communications. Reliability issues (potentially to include those mentioned in the comment) will have be resolved before the system is allowed to be used for critical communications. If the system were to be used for critical communications, it would be included in RCM and potential modes of failure identified and addressed (e.g., repaired, replaced, or backup provided).

00151-017: The Unlikely Spills portion of Section 4.4.4.5.4 notes that response times could differ from the assumptions and that these differences could result in larger areas being impacted by the spills. Additional text has been added to Section 4.4.4.5.4 to clarify that if the assumptions are not met, that the impacts from the spill would be significant and affect a much larger area.

Assuming the wind direction does not change before the response, is conservative. Since the oil travels in only one direction during the response time it covers a larger distance and subsequently oils a larger portion of the shore line. As discussed in Section 4.4.4.10, a sensitivity of the calculation to wind direction was evaluated.

Additional information about the fate and effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10. The discussion in Section 4.4.4.10.2 of the effects of the EVOS on fish resources has been expanded and includes additional citations.

Section 4.4.4.5.4 notes that it is assumed that the spill occurs in non-extreme weather conditions, and that if conditions were different, larger areas could potentially be impacted.

00151-018: RCM does not preclude deferred maintenance. The potential for failure would have to be a consideration after reviewing design safety factors and load projections. The RCM analysis is designed to provide quantified information about the suitability of TAPS' current operating conditions to that of the original design.

With respect to suspension bridges, JPO requested that the Tanana River Bridge be inspected in 2000, according to the five-year inspection requirement to determine its condition. The Tanana River Pipeline Bridge was inspected by APSC project F066 in 2001, which resolved this compliance deficiency (http://www.corecom.net/JPO/Pubs/CMPs/CMP11/Ch3.pdf). Health and safety and repair and maintenance activity inspections were conducted at the Tanana Bridge during the weeks of 6/30/01 to 7/17/01 (http://www.corecom.net/JPO/Pubs/01Weekly/07-17-01.html). During the week of 7/25/02, the JPO released an engineering report on Stipulation 3.6.1.2, "Culverts and Bridges," in which APSC is considered to be in compliance with the Grant and Lease, as long as adequate maintenance is applied to keep the suspension bridges in this condition (http://www.corecom.net/JPO/Pubs/02Weekly/7-25-02.htm).

00151-019: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00151-020: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

Responses for Document 00152

00152-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00152-002: Tax revenues from North Slope production and TAPS have provided considerable financial benefits to local governments throughout Alaska. In addition to the royalties and severance taxes paid to the state for oil production, a share of which is distributed to local governments throughout the state, a number of local governments are able to collect property taxes on oil company property located within their jurisdictions. A large proportion of revenues collected by local governments in the North Slope Borough and the City of Valdez come from oil sources, meaning that these communities have become highly dependent on these revenues.

The taxable base is shrinking as the TAPS facilities are depreciated in Valdez and elsewhere. The ability to predict further depreciation for the life of the project is also critical for local government planning. Falling state tax revenues from declining North Slope production would also potentially limit state support for local government programs.

While it is becoming clear that even with TAPS renewal, new sources of revenue in addition to likely cutbacks in expenditures will be necessary in the near future at both the state and local level. The nature and timing of any changes that might be made to the structure of government finances in Alaska are unclear at this time. Because of this uncertainty, the EIS assumed that existing levels of revenue and expenditure growth would be maintained throughout the renewal period, and that the evaluation of decisions made by the state and local governments to change the way tax revenues are raised to support existing expenditure programs, including changes in property tax rates and the size of transfers between state and local governments, was considered to be beyond the scope of the analysis.

Specifically, proposed changes in assessment rates for property taxes suggested by the commentor, that might be made to maintain adequate levels of local government service provision in the City of Valdez, would be the result of negotiation between the City of Valdez and the State of Alaska, the outcome of which is unknown at this time.

00152-003: Text has been added to the EIS in Sections 4.3.19.1.2 and 4.6.2.19.1 providing additional information on the assumptions used for the analysis of state and local government finances.

00152-004: Text has been added to the EIS in Sections 4.3.19.1.2 and 4.6.2.19.1 providing additional information on the assumptions used for the analysis of state and local government finances.

00152-005: Tax revenues from North Slope production and TAPS have provided considerable financial benefits to local governments throughout Alaska. In addition to the royalties and severance taxes paid to the state for oil production, a share of which is distributed to local governments throughout the state, a number of local governments are able to collect property taxes on oil company property located within their jurisdictions. A large proportion of revenues collected by local governments in the North Slope Borough and the City of Valdez come from oil sources, meaning that these communities have become highly dependent on these revenues.

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Specifically, proposed changes in assessment rates for property taxes suggested by the commentor, that might be made to maintain adequate levels of local government service provision in the City of Valdez, would be the result of negotiation between the City of Valdez and the State of Alaska, the outcome of which is unknown at this time.

00152-006: Text has been added to the EIS in Sections 4.3.19.1.2 and 4.6.2.19.1 providing additional information on the assumptions used for the analysis of state and local government finances.

00152-007: Tax revenues from North Slope production and TAPS have provided considerable financial benefits to local governments throughout Alaska. In addition to the royalties and severance taxes paid to the state for oil production, a share of which is distributed to local governments throughout the state, a number of local governments are able to collect property taxes on oil company property located within their jurisdictions. A large proportion of revenues collected by local governments in the North Slope Borough and the City of Valdez come from oil sources, meaning that these communities have become highly dependent on these revenues.

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00152-008: Text has been added to the EIS in Sections 4.3.19.1.2 and 4.6.2.19.1 providing additional information on the assumptions used for the analysis of state and local government finances.

00152-009: Tax revenues from North Slope production and TAPS have provided considerable financial benefits to local governments throughout Alaska. In addition to the royalties and severance taxes paid to the state for oil production, a share of which is distributed to local governments throughout the state, a number of local governments are able to collect property taxes on oil company property located within their jurisdictions. A large proportion of revenues collected by local governments in the North Slope Borough and the City of Valdez come from oil sources, meaning that these communities have become highly dependent on these revenues.

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Specifically, proposed changes in assessment rates for property taxes suggested by the comment, that might be made to maintain adequate levels of local government service provision in the City of Valdez, would be the result of negotiation between the City and the State of Alaska, the outcome of which is unknown at this time.

00152-010: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

Responses for Document 00153

00153-001: While it is clear that the costs of the spill measured in terms of losses to the recreation, tourism and fishing industries have been significant, these have been outweighed by the large cash flows associated with spending by the large number of cleanup workers involved, producing additional employment and income impacts in the local area and in the state as a whole (see Section 4.7.8.3). There were also additional offsetting economic benefits from compensation claims as it is likely that a portion of the cash from compensation payments has been spent in local communities directly affected by the spill and in the state as whole. The long-term effects of the spill on the environment in Prince William Sound have yet to be fully established and the potential costs of compensatory claims for additional environmental damages may still significantly increase the overall monetary cost of the spill.

The spill response capability in Prince William Sound developed after the Exxon Valdez accident means that it is unlikely that a spill of the same magnitude would occur again, and that the local and state expenditures/impacts associated with spill response and clean-up activities for any spill would be as significant. The possibility of compensatory claims following any long-term damage to the environment resulting from a spill, however, may still increase the monetary cost of even a relatively small spill, although there may be offsetting economic benefits depending on the extent to which cash from compensation payments is spent inside the state.

Text has been added to the EIS providing additional sources of information on the impact of the Exxon Valdez oil spill on economies, fisheries resources and tourism in the Prince William Sound area.

00153-002: In addition to the economic analysis presented in the EIS, Section 4.4 presents an extensive analysis of potential spills, including several worst case scenarios of oil spills.

00153-003: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00153-004: Comments received during scoping are aggregated into a record of public scoping and are used to frame the issues and the analyses in the DEIS. All scoping comments were considered in preparing the DEIS. Scoping comments are not listed and identified individually or responded to in the DEIS. Comments received on the quality of the analysis in the DEIS are addressed specifically in the FEIS and may result in text changes in the FEIS as well.

00153-005: The performance of these companies (through their agent, Alyeska Pipeline Service Company) in operating and maintaining TAPS was considered in the analysis.

00153-006: The impact of the cuts depends on the specific items to be cut. The Federal Grant and authorizing legislation (TAPAA) provide unprecedented authority to BLM in the assuring protection of human health and the environment. With this authority, the BLM and JPO can ensure that the appropriate level of maintenance is performed.

00153-007: Thank you for your comment.

00153-008: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00153-009: The TAPAA and the Federal Grant of right-of-way provide BLM with all the authority it needs to oversee operation of the TAPS and to impose strict and enforceable requirements upon APSC to comply with necessary operational procedures.

00153-010: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered, but Eliminated from Detailed Analysis."

00153-011: The BLM in the preparation of the EIS did not favor one point of view over another or evaluate certain published literature over other published literature. The studies cited by RCAC in this comment have been incorporated in the FEIS where appropriate. Additional information about the fate and potential effects of aqueous phase oil has been added to the discussion of impacts from spilled oil in Section 4.4.4.10.

00153-012: The Grant/Lease holds APSC responsible for maintaining normal operating conditions throughout the Grant period. The design basis for TAPS has undergone review and approval, as have any subsequent changes to the design basis. Thus, the normal operating condition of TAPS is a legitimate reference point from which to identify and evaluate environmental impacts. However, the substantial operating record of TAPS provides a unique opportunity to reflect on the environmental impacts that have resulted from past occasions of off-normal conditions, including wholesale failures that have resulted in releases of oil to the environment. These off-normal conditions and their subsequent environmental impacts were incorporated into the assessment of environmental impacts, as were the design basis changes and additional controls that were established to preclude future impacts to the environment from off-normal conditions.

Not all off-normal conditions will automatically lead to adverse consequences. The condition you offer is one such example. There is no evidence that the alleged problems with waxy solids in the BWTF 90s tanks have resulted in off-normal effluent discharges from the BWTF, which have had an impact on the environment or public health and safety. The Alyeska Annual Data Report for June 2000-May 2001, filed with the EPA and ADEC pursuant to Part III.B.6 of NPDES Permit No. AD-002324-8, shows the effluent from the BWTF did not exceed the specific limits established in the permit. Since the effluent limits in the permit are established by the EPA, and certified by the ADEC, at levels expected to prevent adverse effects on receiving waters, it is reasonable to conclude that when these effluent limits are met, there is no significant adverse effects to existing water quality of Port Valdez from BWTF effluent discharges, regardless of certain less than optimal plant operations. Other sections of the EIS deal with the impact of contaminants from all sources on the physical marine environment.

The JPO has required APSC to adopt a reliability-centered maintenance (RCM) posture in order to better evaluate all TAPS components for the consequences of their failures. The RCM evaluation process allows attention and resources to be focused on those off-normal conditions that do lead to adverse consequences.

00153-013: The operation and maintenance history of TAPS was reviewed as part of the analysis. The spill analysis considered the potential for catastrophic failure due to a variety of causes, including those initiated by human factors and equipment failures. However, given the level of attention paid to controlling corrosion, the likelihood of catastrophic failure due solely to corrosion was considered to not be a credible spill scenario. See Section 4.1.2.3 for a discussion of corrosion control systems. See Section 4.1.3.2 for a discussion of the routine surveillance activities, especially instrument pig runs, to detect pipeline corrosion. Section 4.4 provides an analysis of credible spill scenarios.

00153-014: Under the Federal Grant, APSC has the continuing obligation to operate TAPS safely and in a manner protective of public safety and the environment. Alaska regulations require APSC to develop and submit for review contingency plans for dealing with accidental releases of crude oil or other hazardous materials. Alaska regulations are prescriptive, detailing what must be included in contingency plans. Resource commitments (of both equipment and trained personnel) must be addressed in the Contingency Plans. All contingency plans are subject to review and approval by various regulatory bodies and the approval process provides for public input. Contingency plans notwithstanding, APSC is solely responsible for developing appropriate operating procedures and making resource commitments that are sufficient for their execution. Under its Comprehensive Monitoring Program, JPO maintains oversight of APSC operations. When deficiencies are identified, JPO's oversight involves root cause analysis that can potentially address resources. APSC is directed to develop and submit for JPO's approval corrective action plans which may address the resources necessary for completion of the corrective actions or preclusion of reoccurrence of the deficiencies noted.

00153-015: The EIS reported a total of 26 tankers, which is composed of 10 tankers operated by the Alaska Tanker Company, LLC; 8 tankers operated by Polar Tankers, Inc.; 6 tankers operated by SeaRiver Maritime, Inc.; and 2 tankers operated by Seabulk International, Inc. The list of tankers was based on data provided by the APSC and confirmed using information collected by the British Columbia Oil Spill Task Force Prevention Project (available at http://www.ecy.wa.gov/programs/spills/prevention/bap/TAPS%20Trade%20Tanker%20Report.htm).

The estimate of 8 to 10 tankers by 2020 is based on a reduced TAPS throughput of 0.72 million barrels per day, lower than the current value of about 1 million barrels per day. As such, the annual number of tanker calls at the VMT is estimated to decrease from a value of 496 (of which 38% are double-hull tankers) to 283 tanker calls in 2020 (of which 100% are double-hull tankers). The decreased number of tanker calls coupled with the increasing use of double-hull tankers can be expected to decrease the risk of a major oil spill in the Prince William Sound.

00153-016: The Ballast Water Treatment Facility (BWTF) permit and regulatory effluent and emission levels were established (through a process that included public participation) to prevent adverse effects on the environment. Therefore, it is reasonable to conclude that compliance with environmental regulations and BWTF permit conditions ensures there is no adverse effects to existing environmental quality. That is not to say there are no discharges or emissions of contaminants and no resulting impacts to environmental media. The EIS does address the short-term and long-term impacts of discharges and emissions from TAPS operations on the environment and public health.

00153-017: The BLM and the member agencies of JPO had full access to all information related to TAPS operations during the preparation of the DEIS and FEIS. With a very few exceptions, federal records within the JPO are available for public review.

00153-018: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

Responses for Document 00154

00154-001: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00154-002: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00154-003: Prior to a planned maintenance shutdown in 2002 (to replace RGV 39), the JPO required APSC to perform a formal evaluation and drill of all of its shut-down and start-up procedures to ensure they were correct and appropriate. APSC has also modified pump station piping to enhance the cold restart capability. TAPS spill history was considered in the EIS. See the spill analysis in Section 4.4.

The text box in Section 4.1.1.8 provides a synopsis of the MP 400 bullet hole incident. Details of the spill and the response are provided. Changes to the pipeline's spill contingency plan that are being made as a result of lessons learned are also discussed.

00154-004: Thank you for your comment.

00154-005: It is true that in response to the Alaska Supreme Court ruling, the Alaska Legislature enacted Senate Bill 343, which explicitly approves the existing ADEC regulations, as described above, for making the determination whether the best available technology is included in oil spill prevention and response contingency plans. The Bill was signed into law on April 17, 2002 (amending AS 46.04.030(e)). In Senate Bill 343, the Alaska Legislature found that the ADEC 1997 regulations met the legislature's intent with respect to application of best available technology through reliance on proven, appropriate, and reliable technology meeting the response planning standards in AS 46.04.030(k) and the use of performance standards set in regulation or other specific criteria for determining best available technology. It specifically amended the prior statute to read that the ADEC may find that any technology meeting the response planning standards in AS 46.04.030(k) or a prevention performance standard established under AS 46.04.070 is the best available technology. In addition, under the new statute, the ADEC may maintain a list of those technologies that are considered the best available. The ADEC is setting up a series of public meetings to solicit suggestions for new equipment or systems. Promising new technologies will be reviewed by ADEC contractors. At that point, the list of new technologies selected as best available will be used for guidance when the ADEC reviews oil spill prevention and response contingency plans.

00154-006: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

The TAPS Oil Discharge Prevention and Contingency Plan for the pipeline (C-Plan), prepared by APSC (2001g—see Section 3.30 of the FEIS for the reference), provides for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline, including at river crossings.

The C-Plan is updated periodically and lessons learned from actual occurrences as well as from regular exercises conducted along the pipeline are incorporated into the C-Plan. In addition, the C-Plan is reviewed annually by BLM, every three years by ADEC, and every five years by DOT. EPA also reviews the plan as it applies to pump stations. As part of this process, APSC and the federal and state agencies with oversight responsibilities for TAPS make sure that the appropriate emergency response equipment and personnel are made available along the TAPS.

Response crews and equipment for initial deployment are stationed at Pump Station 9, Glennallen, Pump Station 12, and Valdez. The entire region crossed by the pipeline has been characterized with respect to the potential flow of spilled oil. Appropriate containment tactics are described in the C-Plan with site-specific descriptions for each identified containment site. For example, the Region 5 plan, which contains all contingency areas that could affect the Copper River, lists 12 contingency areas and 38 segment areas. Each of these 38 segment areas lists priority control actions and specific containment instructions. Each regional plan includes tables detailing materials and equipment available for oil spill response at all stations and containment sites.

The reader is also referred to the text box in Section 4.4.4.3 where spill planning, response, and mitigation for the Copper River Drainage are discussed.

00154-007: Section 4115 of the Oil Pollution Act of 1990 (33 CFR 157.10d) imposes certain requirements on tankers calling at U.S. ports and specifies which vessels are permitted to use U.S. ports by year, size of vessel, hull design (single hulls, double bottoms, or double sides), and age of vessel. By the year 2015, all tankers calling on U.S. ports must have double hulls (double bottoms and sides). The U.S. Maritime Administration published a schedule, which indicates that the last of the present fleet serving the VMT will be phased out by the end of the year 2013 and the fleet will consist exclusively of double-hulled tankers beginning in year 2014.

00154-008: Tanker operations are under the regulatory purview of the U.S. Coast Guard and the U.S. Department of Transportation. While tanker operations are considered in the analysis of environmental impacts in the EIS, training for tanker crews is outside the scope of the document.

00154-009: Training of employees is critical to successful safe operation of the TAPS, and it is an integral part of employee development at JPO and APSC.

The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

00154-010: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00154-011: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

Responses for Document 00155

00155-001: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

Responses for Document 00156

00156-001: Comments received during scoping are aggregated into a record of public scoping and are used to frame the issues and the analyses in the DEIS. Scoping comments are not listed and identified individually or responded to in the DEIS. Many of the peer-reviewed source documents cited in the subject report are used and referenced in the DEIS.

00156-002: Comments received during scoping are aggregated into a record of public scoping and are used to frame the issues and the analyses in the DEIS. Scoping comments are not listed and identified individually or responded to in the DEIS. Many of the peer-reviewed source documents cited in the subject report are used and referenced in the DEIS.

00156-003: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00156-004: Thank you for your comment.

00156-005: For clarification, the entire paragraph from which the referenced sentence was extracted is provided below. The purpose of this paragraph was to provide the reader with background information related to TAPS.

The TAPS facilities are routinely maintained and upgraded to ensure safe and efficient operation and minimize the likelihood of releases. In addition to visual inspections, use is made of “pigs” which are launched into the pipeline at Pump Stations 1 and 4 and carried along with the flow of oil. Pigs are mechanical devices that can be used to clean accumulated wax from interior pipe walls, to survey interior pipe diameter, to detect corrosion on the inside or outside walls of the pipe, and to measure pipe movement. If necessary, repairs can be made to the pipeline to correct problems. The largest repair to date was the replacement of 8.5 miles of corroded pipeline at Antigun Pass in 1991.

00156-006: JPO and APSC have entered into Memoranda of Agreement committing APSC to using Reliability Centered Maintenance (RCM) protocols to support maintenance decisions and clarifying expectations on the use of RCM. JPO has taken appropriate steps to ensure RCM is properly applied. See Section 4.1.1.7 for additional discussions.

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00156-011: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00156-012: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

Responses for Document 00157

00157-001: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00157-002: Section 3.25.1 has been revised to provide a wider range of factors that have led to the continuity of Alaska Native sociocultural systems.

00157-003: No statement in the EIS is intended to belittle or discredit Alaska Natives, their cultures, or their governments. Sections 3.25.1.1 and 3.25.1.2 has been reworded to describe modern Tribal governments in greater detail, and to remove any wording that might lead to the above misunderstanding.

00157-004: The text to which the comment refers has been changed.

00157-005: Section 3.25 has been expanded to discuss federally recognized tribes and their role in current sociocultural systems of Alaska Natives.

00157-006: The term “evolve” is used in the DEIS in the sense of “change over time.” It does not necessarily imply a progression from simple to complex.

00157-007: The evaluation of likely economic impacts due to the TAPS are included under local government revenues and expenditures, as discussed in Section 4.3.19.5.4. Additional text has been added to note this, and to account for not discussing these government units separately from other local government entities In addition, impacts to federally recognized Tribes were considered in combination with other minority populations under environmental justice (e.g., Sections 3.29, 4.3.25).

00157-008: The EIS characterizes some Alaska Native groups as semi-nomadic bands and notes that some aggregated seasonally. This is another way of saying that they have a residence pattern that includes the regular seasonal occupation of chosen sites to exploit specific localized resources. The EIS does not use the term “nomadic.” There is no negative connotation to the term “semi-nomadic.”

00157-009: The EIS describes an egalitarian tendency among “most” Alaska Native sociocultural systems, in particular, pointing to these systems around the time of Euro-American contact. This does not imply that all systems are or were egalitarian. Moreover, the EIS does not equate “egalitarian” with “simple” or “primitive.” In egalitarian societies, status is achieved rather than ascribed at birth. Table 3.25-2 describes a number of complex egalitarian-ranked societies, with partially-inherited leadership as well as hierarchical clan structures, which the comment appears to have overlooked. The Handbook of North American Indians of course presents overviews of Native peoples based on hundreds of references; in addition, a number of other references were consulted in developing the synthesis of Native peoples in Section 3.25.1.

00157-010: The discussion in Section 3.25 has been revised and now includes discussions of federally recognized tribes. There was no attempt to diminish the importance or undermine the authority of these institutions.

00157-011: Section 3.25.1.1.7 has been revised to discuss the Chugach Alutiiq in greater detail. Changes between the period of early documentation in the mid-19th century and pre-contact times nonetheless indicate substantial differences between these two periods.

00157-012: The term “modern” as used here means “as they exist today” as opposed to “as they were previously.” In this sense, “modern” communities can have elected tribal councils.

Section 3.25.1.1.7 has been revised to acknowledge the presence of federally recognized Tribes at Chenega Bay and Tatitlek.

00157-013: There is no inherent inconsistency in describing federally recognized Tribes as “modern communities” if they are such. The EIS does not imply that the formation of Chugach Natives, Inc., solved all Alaska Native issues in the area. To avoid further misunderstanding, Section 3.25.1.2 has been reworded to clarify the role of Alaska Native corporations.

00157-014: None of the tables in DEIS Section 3.25 includes the referenced figure for Natives in Cordova. Table 3.25-2 in the FEIS has been modified to note the multiple sociocultural and ethnic affiliations of Cordova (and the Native Village of Eyak).

00157-015: Table 3.25-2 has been revised to take into account the perspective of the Tribal government of the Eyak Native Village. The discussion of the Eyak vis a vis the Tlingit is based on the work of anthropologists earlier this century whose work generally is considered both meticulous and accurate, and who had access to Eyak Elders whose experiences stretched well into the 19th century.

00157-016: Because Alaska Natives tend to follow a pattern of seasonal occupation to efficiently harvest resources at various locations it is difficult to make accurate population counts at a particular location. The qualifiers used in this table reflect this reality. They are in no way intended to minimize the importance of indigenous peoples or their cultures. Quite the contrary, the potential for localized negative consequences to have devastating effects on a sociocultural system would be greater if the population were smaller. A larger population would be better able to absorb the impact.

Responses for Document 00158

00158-001: Since the Exxon Valdez Oil Spill in 1989 and the enactment of the Oil Pollution Act in 1990, significant improvements have been made in the procedures, staffing, and the equipment needed to prevent and respond to potential oil spills from tankers in the Prince William Sound. Among the improvements made are the following: (1) APSC's Ship Escort/Response Vessel System was established in July 1989 to help tankers navigate through the PWS and to respond to potential oil spills, (2) new procedures were established and regulations put in place by the United States Coast Guard to better control the tanker traffic in the PWS, (3) the PWS Regional Citizens' Advisory Council was created to help plan for and oversee the oil spill prevention and response operations, (4) the amount of equipment and personnel available for oil spill prevention and response was increased, (5) more stringent training and personnel monitoring programs were established, (6) government oversight was increased, and (7) the spill prevention and response budget was increased dramatically. The currently available oil spill response capabilities and plans for the PWS are summarized in Section 4.1.4 of the EIS and are provided in detail in the Prince William Sound Oil Discharge Prevention and Response Plan (Prince William Sound Tanker Plan Holders 1999).

TAPS RENEWAL DEIS
PUBLIC HEARING

Glennallen, Alaska

July 31, 2002

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P R O C E E D I N G S

(Glennallen, Alaska - 7/31/2002)

HEARING OFFICER GEARY: All right, I'm going to call the hearing back to order.

This public hearing is called to order. Good evening. My name is Dennis Geary and I am the Hearing Officer assigned to preside at this hearing. The purpose of this hearing is to receive public comments concerning the proposed renewal of the Right of Way for the Trans-Alaska Pipeline System. We invite comments on the following three documents related to that proposal:

1. The Bureau of Land Management Draft Environmental Impact Statement.

2. The Evaluation and Finding regarding subsistence under Section .810 of the Alaska National Interest Lands Act which are contained in Appendix E of the Draft Environmental Impact Statement.

3. The State of Alaska, Department of Natural Resources Commissioner's Statement of Reasons and Proposed Written Determination, Trans-Alaska Pipeline Right of Way Lease Renewal ADL63574.

It's not the purpose of this hearing to engage in a discussion or debate or to respond to questions about the Draft Environmental Impact Statement, subsistence, the Commissioner's Determination or the

Trans-Alaska Pipeline system.

In addition to myself, State and Federal representatives from the Joint Pipeline Office are here to listen to your comments. I'll let them introduce themselves.

MR. REIMER: I'm Gary Reimer from Bureau of Land Management, Joint Pipeline Office. And thank you all for coming.

MR. PASADA: I'm Henry Pasada, BLM director, I've been here about three weeks now.

MR. KERRIGAN: John Kerrigan, State Pipeline Director for Department of Natural Resources.

HEARING OFFICER GEARY: Notice of availability of the Draft Environmental Impact Statement on the TAPS Right of Way Renewal appeared in the Federal Register on July 2nd [sic], 2002 in Volume 67, Number 129 at Page 44832. In addition, in early June the TAPS Renewal EIS website posted the public hearing dates and locations. An electronics news release was sent to more than 430 subscribers throughout Alaska and the nation announcing the information. On June 24th, 2002, the TAPS Renewal EIS newsletter was mailed to more than 400 subscribers announcing the public hearings, dates and locations. On July 3rd, 2002 the Draft Environmental Statement was published, were mailed out 100 hardcopies

of the DEIS to agencies and organizations and included city mayors and affected Alaska Native Tribes. On July 5th, the Federal Register noticed the DEIS availability and public hearing, locations and times. On July 5th, 2002, the Anchorage Daily News, the Fairbanks Daily News Miner and the Juneau Empire displayed ads for the DEIS availability and public hearings. Public notices for the DNR Commissioner's Proposed Statement of Reasons and Written Determination were posted in the Anchorage Daily News on July 3rd and July 10th, 2002, the Fairbanks Daily News Miner on July 5th, 2002 and the Juneau Empire on July 5th, 2002. On July 5th, 2002 a four page comprehensive news release was sent to all newspapers in Alaska, including the Cordova Times, the Valdez Vanguard, the Arctic Sounder, the Anchorage Daily News, the Fairbanks Daily News Miner. On July 10th, 2002, the Valdez Vanguard and the Valdez Star half-page display ad appeared with the hearing schedule. On July 10th, 2002 the Valdez Vanguard published public notices for the DNR Commissioner's Proposed Statement of Reasons and Written Determination. On July 11th, 2002 the Cordova Times and the Arctic Sounder published a half-page ad with the hearing schedule. On July 11th, 2002 the Cordova Times and the Arctic Sounder published the DNR Commissioner's Proposed Statement of Reasons and Written Determination.

On July 12th, 2002, the Delta Wind published a half-page ad with the hearing schedule. On July 24th, 2002 the Valdez Vanguard published a half-page display ad reminding the public about the hearing. And on July 25th, 2002 the Cordova Times, the Valdez Vanguard, the Copper Valley Weekly published a half-page display ad reminding the public about the hearing. In addition, notices about the hearing were sent to individuals and organizations that have requested to be kept informed about this project. If you would like to be on that list and to receive information about this project, you can sign up at the back table.

Both oral and written comments will be taken tonight. In addition, comments can be submitted to the BLM by mail, fax, telephone, the internet or hand-delivered to the Joint Pipeline Office in Anchorage. The State will accept additional written comments sent by fax, mail or e-mail. We will accept additional comments received or postmarked by August 20th, 2002, which is the closing date of the public comment period for the Draft Environmental Impact Statement and the Commissioner's Proposed Determination. Information for providing additional comments is on the registration at the back of the room. All oral and written comments received by the end of the public comment period will be treated equally

and will be analyzed and considered in the preparation of the Final Environmental Impact Statement and the Commissioner's Final Determination. In addition, both the Final Environmental Impact Statement and the Commissioner's Final Determination will contain written responses to the comments received to the draft documents.

In order to ensure a complete and accurate record of the hearing, it's necessary that only one person speak at a time. It's also requested that everyone remain as quiet as possible while the hearing is in process.

At this time I'd request that all persons either turn off your cell phones or switch them to a vibrate only mode. If you wish to speak, please sign in at the registration table. Speakers will be called in the order in which they're registered. In the event that a speaker is not present when their name is called, we'll proceed and that person's name will be called again later. In order to give everyone who wishes to speak an opportunity to do so we have limited the time for each speaker to 10 minutes. This box light will help you know when your time is nearly up. The light will turn green as you begin your comments, it will turn yellow when you have one minute remaining and will turn red when your

time is up.

A court reporter is here and will record the oral comments and prepare a verbatim transcript. If you have an extra written copy of your comments, please provide it to me for any clarification that may be necessary at a later date. In any event, your remarks will be recorded as you state them. If you wish to supplement your oral comments with additional written material, please provide that material and it will be marked as an exhibit and made a part of this hearing.

All right, are there any questions regarding the hearing process tonight?

All right, the first person that I have registered to speak tonight is Tom Kuckertz. 00159

MR. KUCKERTZ: Hi. My name is Tom Kuckertz and I represent the Prince William Sound Regional Citizen's Advisory Council. And I again thank the Hearing Officer for allowing us this opportunity to speak. I'd like to just make a few comments.

We note that the DEIS is a sizeable document with 1,700 pages with many hundreds of literature citations. We have a concern that the comment period is too short. Our council position is to ask for another 45 days to evaluate the DEIS. We note that the JPO has issued a press release indicating that the

159-1

comment period will not be extended. I believe John Devens will speak to that proforma approach to citizen comment. However, I'm, you know, feeling a little bit like the warden in Cool Hand Luke so memorably lamented his failure to communicate. 159-1 (Cont.)

Nevertheless, we would like to talk about some issues that we haven't talked about before. And one of the issues that we alluded to was the quality of literature cited. And in review, you know, a lot of recent literature has been overlooked. Studies funded by the oil industry seem to have been favored and contradictory studies funded by others appear to have been overlooked. And so we actually happen to have some quality literature with us which we intend to leave with you so that you'll be able to look at these things. 159-2

RCAC is pleased to note in the DEIS that research by Jeff Short has been cited. However, we note that his work associated with the possible sources of hydrocarbons in Prince William Sound from other than Alaska North Slope crude was cited. RCAC believes that some of Dr. Short's other research regarding the lingering effects of the Exxon Valdez Oil Spill might be of interest when changes to the DEIS are considered. Indeed, there are other sources of hydrocarbons from coal, seeps at Katalla and other geological features. 159-3

However, we believe that the discussion of the other sources of hydrocarbons discussion is incomplete and misleading. For example, these sources are located in deep water and in general are not bio available. If one were to examine the inter-tidal zone of the beaches oiled by the Exxon Valdez, considerable quantities of hydrocarbons will be found. These hydrocarbons will show high levels of bio availability and the hydrocarbons will bear the unmistakable signature of Alaska North Slope crude oil. Considerable recent research on this subject is available from Jeff Short and others. A more detailed discussion supported by recent literature citations of the lingering effects of the Exxon Valdez Oil Spill for the cumulative effects discussion in the DEIS is necessary if there is to be any reasonable claim that the cumulative impact that the Exxon Valdez Spill has been addressed.

159-3 (Cont.)

159-4

And you know, we'll leave you with a bibliography, but in this bibliography there are six papers, for example, implicating the Exxon Valdez Oil Spill and long-term damage to sea otters and ducks. There are two papers listed that talk about the long-term effects of the Exxon Valdez Oil Spill on pink salmon. Two papers about oil persistence in Prince William Sound. Two papers, in general, why oil is bad for fish. And a

159-5

single reference on why the Exxon Valdez and government sponsored studies of the same oil spill arrive at such different conclusions. And so we'll have that bibliography here and we'll present that to you. 159-5 (Cont.)

Now, what I'd like to do is look at some issues associated with air and water quality that I don't think have been addressed in the DEIS. And basically let's take a look at what the issues of concern are to us. For example, there's more than a hundred tons per year of hazardous air pollutants emitted at the Valdez Marine Terminal. More than a thousand tons per year of volatile organic compounds are emitted. 159-6 And basically we have no real numbers on these things, so we want to know what the real numbers are. We want to know what the impact of the emissions are and even given the numbers in the DEIS, we exceed some of the EPA criteria. 159-7 The DEIS references old literature in this area which was controversial in its day and today might not be relevant because of changes in operations. 159-8

What is the cumulative impact of these? 159-9 What is the future impact? 159-10 We don't believe the DEIS addressed these questions. There is some literature worth considering. We're going to actually leave copies of the papers with you plus we also have them on this CD-rom. 159-11 The Valdez Marine Terminal Air Quality Oversight

Project, Phase I by Environmental Solutions, May 2002. The Valdez Marine Terminal Air Quality Issues, which was done by Prince William Sound RCAC and Environmental Solutions. It's a powerpoint presentation that sums up the issues very quickly. And then comments on the proposed rule for National Emission Standards for hazardous air pollutants, organic liquid distribution. And we submitted that to the EPA on May 27th, 2002. We believe that these will cover a lot of the air quality issues and provide you some additional literature with which to research this. Additionally, we have a letter to EPA and from Alyeska just to show that we're balanced regarding each others contributions to this National Emissions Standards. And so we have that.

159-11 (Cont.)

In addition now I'd like to talk about the water quality issues. Again, it's the same questions. What are the issues of concern to Prince William Sound RCAC? Well, for one, the BWTF is putting out 10 millions a gallon or more per day of treated ballast water. This hydrocarbon content of this water is two to eight parts per million and this is equivalent of one barrel or more of oil discharged into Prince William Sound. And we're getting conflicting analysis that this is the most hazardous stuff known to man and/or in some cases from Alyeska that this might be new kind of fish

159-12

food. So there's a wide range of opinion on how harmful this stuff is. And so we think the Environmental Impact Statement ought to address 30 years of this type of discharge and what this type of discharge will do for us in the next 30 years. 159-12 (Cont.)

Recent research shows port-wide spread at low levels of hydrocarbons with the distinctive signature of Alaska North Slope crude, we want to know, you know, what the real numbers are because it's not being measured. We have submitted appropriate reports to EPA and DEC and they're actually considering as part of the NPDES permit and mixing zone permit renewal to include increased monitoring reports. They want to know what is in the fluid. And so we want to know what the impact of the discharge from the BWTF. And, you know, the actual impact now and we want to know what the future impact is. We believe that the DEIS should address this. 159-13 159-14

Some literature worth considering. The Final Report, 2001 report of the Port Valdez Water Monitoring Contract which was done by Mike Salazar and others. And this is actually a very large report, has lots of raw data in it. These are the real measurements that we have made and it cites appropriate literature. And let me just talk about some of the folks that did this. This was prepared by Mike Salazar, Ph.D., Jeffrey 159-15

Short, Ph.D., working for Auke Bay Laboratory, Jim Payne, Environmental Consultant Ph.D., so we're not talking about some stuff that was made up in, you know, our backyard down there in Valdez, you know, these are real measurements, real analysis. 159-15 (Cont.)

And we'll talk about the evaluation of mixing zone, NPDES permit and this is the report that we gave to DEC and the EPA regarding, you know, what additional things should be monitored, what can be done to improve your lessening the amount of hydrocarbons in the discharge. So we're interested in that. 159-16

I'll just leave that with you now. I don't have many other comments. But I would like to leave this literature and all the papers with you. There are some presentations in here and I believe that they highlight our issues and we could go on for hours if we were to go all the way through it. But I believe that we would like to get this information into the record.

HEARING OFFICER GEARY: Do you also want to put your comments in as well?

MR. KUCKERTZ: Those are in draft form right now and we'll get them to you probably by Anchorage.

HEARING OFFICER GEARY: All right. I'm going to mark the CD-rom as Exhibit 16, that's the next

in line.

MR. KUCKERTZ: And I also put my business card in there.

HEARING OFFICER GEARY: Okay, for whatever reason the rom is not readable.

MR. KUCKERTZ: We can provide you with a new one.

HEARING OFFICER GEARY: Thank you.

MR. KUCKERTZ: Thank you.

HEARING OFFICER GEARY: All right, so Exhibit 16 is the CD-rom.

MR. KUCKERTZ: That's the bibliography.

HEARING OFFICER GEARY: This is the bibliography?

MR. KUCKERTZ: Yes, it is.

HEARING OFFICER GEARY: All right. The bibliography will be Exhibit 17, three page document. The packet of information entitled Environment Solutions, Valdez Marine Terminal Air Quality Oversight Project, Phase I will be marked as Exhibit 18.

MR. KUCKERTZ: And there's a presentation and some other literature with that.

HEARING OFFICER GEARY: All right. News Release.

MR. KUCKERTZ: You guys already know

about that.

HEARING OFFICER GEARY: All right, do you still want to put it in?

MR. KUCKERTZ: I believe it's probably already part of the record.

HEARING OFFICER GEARY: I can add it if you'd like or I can let you collect it back up.

MR. KUCKERTZ: I'll collect it.

HEARING OFFICER GEARY: All right.

MR. KUCKERTZ: That will not be helpful.

HEARING OFFICER GEARY: All right. And then finally, this should be considered as a packet?

MR. KUCKERTZ: Well, this is a presentation, a paper on the NPDES permit and then Port Valdez Water Quality Study.

HEARING OFFICER GEARY: So there are two different.....

MR. KUCKERTZ: There are three things there.

HEARING OFFICER GEARY: Okay. Then, I will mark the powerpoint presentation as Exhibit 19. First page in acceptance of the Payne Environmental Report on NPDES Permit Renewal Applications. Exhibit 20 is the Prince William Sound Regional Citizen's Advisory Council Evaluation of Mixing Zone and NPDES Permit

Renewal Applications for BWTF at the Alaska Marine Terminal, that's Exhibit 20. And finally, Exhibit 21 is a Final Report of a the 2001 Port of Valdez Monitoring submitted to John Devens, Executive Director by Michael Salazar.

(Hearing Exhibits 16 through 21 marked)

HEARING OFFICER GEARY: Thank you, Mr. Kuckertz.

00160

MR. KUCKERTZ: Thank you.

HEARING OFFICER GEARY: Stan Stephens.

MR. STEPHENS: Well, I'm here again representing AFER, Alaska Forum for Environmental Responsibility. This is my third testimony on the DEIS. I previously testified in Cordova and Valdez.

Many of us feel that this DEIS, the decisions are already made and rubber-stamped and that the process that we're going through is one that is required by law and that's why we're doing it. And I think if it were otherwise, it wouldn't have hurt to have more than 45 days for testimony because you would have wanted to hear everything the citizens of Alaska had to say. But it's very obvious that you don't. And I'm not too sure where this is going to go but in my testimony today, like I have at all the hearings, I want to say again, that we just don't have enough time to go through

160-1

this 1,700 page report and comment on it in a 45 day period.

160-1
(Cont.)

It's almost like complacency has set in again like it did back in the late '80s. John Devens, who is here tonight had appointed me head of an ad hoc oil committee back then because we had real concerns on not only what the State and Federal government was doing but that we could get nowhere with Alyeska. And in them concerns, a great number of people predicted what happened in 1989. And that same group of people, same bunch of people are saying we're going to have a problem today if we don't make some changes.

I want to talk tonight, I won't have a written report for you, I'll get one and hand it in later, I had to write this out in a hurry. But I want to talk about the Copper River drainages and how they could be hurt worse from an oil spill than probably any other area and they're probably more at risk than any other area and in my testimony yesterday I explained why.

I don't know if many of you are aware the pipeline leak of crude oil at Kohasat, Minnesota July 4th. This line runs from Edmonton, Alberta to Superior, Wisconsin with connections to the Twin Cities, Chicago and elsewhere. Besides the 250,000 gallons or more of crude spilled in the bogs of Kohasat, the same pipeline

ruptured in 1991 just outside Grand Rapids, Minnesota, just a few miles from the Kohasat spill. This was a 1.7 million gallon spill including 300,000 gallons that went into the Prairie River. In 1991 this pipeline was 25 years old and it weld gave away. A weld that a pig wouldn't be able to pick up. In 2002 it repeated a new rupture when it was 35 years old.

The TAPS line is now 25 years old, in this area of the Copper River goes over or under some 76 streams, rivers or tributaries that flow into the Copper. Does this DEIS report adequately address these areas? With a reduced budget and fewer personnel will the preventive maintenance and oil response be adequate? Does the report address the reduced budget? Does the report say that even with a reduced budget and manpower the area is adequately protected? I don't believe that Alyeska has the resources or response equipment to fulfill an EIS requirement in this area. 160-2

At Kohasat they talked about rainbows trapped on the surface of swamp water swirling in the spaces among thick globs of smelly, heavy Canadian crude. They talk about backhoes and dumptrucks trying to cleanup an impossible mess and today they're still trying. And the person that was in charge of that said he didn't think they would ever get it cleaned up.

If you spill oil on any of the Copper River drainages, the game's all over for all of us. You can't clean it up, you will never clean it up. The rivers flow to fast for any existing recovery equipment and even then, the time from spill to response would be too long to be effective. The backhoes and dumptrucks in Minnesota wouldn't work here. Prevention is the only answer. 160-3

The area from Glennallen to Pump Station 12 and a little beyond is very unstable soil and subject to flooditity and excessive movement in an earthquake. The 1974 agreement and grant of Right of Way for the pipeline stipulated that the pipeline system use state of the art design to prevent any oil leak from seismatic activity ranges from 5.5 to 8.5 on the richter scale in the five earthquake zones the line crosses. More than half the pipeline in 1977 crossed permafrost. In 2002, areas of this ground is no longer frozen under the surface. Also some of the VSMs have heat transfer pipes and radiators to keep the ground frozen. We don't believe they are all working as they are designed to work and wonder if the DEIS addresses them. How can Argonne recommend to anyone that the DEIS be approved when it doesn't meet the 1974 agreement on seismic design if these conditions exist. 160-4

In 2004 it will have been 40 years since the largest ever earthquake in North America. Some scientists believe we're due for another. Just because RCM knows about the weak spots in the 420 miles of elevated pipe, it doesn't prevent a possible accident or an earthquake from occurring. This line should meet the 1974 agreement on seismic design. We need the whole system peer-reviewed by an independent company not close to the oil industry or government. We need to prevent accidents, spills and other problems. This can't be done by cutting budget and reducing manpower and this report, DEIS, should be saying just that. This report should ask for a full independent audit from the North Slope to the terminal before a new EIS is issued. 160-5 160-6 160-7

That's all I have for this evening. Thank you.

HEARING OFFICER GEARY: Thank you, sir. John Devens, Sr.

00161

MR. DEVENS: Do I need to wait for the green light? Okay, I'm John Devens, Executive Director of the Prince William Sound Regional Citizen's Advisory Council.

I was the mayor of Valdez in 1989 during the Exxon Valdez Oil Spill and at that time I became a true believer that citizen's input is extremely valuable

when we're dealing with these types of issues. At that time we had great difficulty getting into the information or decision-making loop. The Regional Citizen's Advisory Council is certainly helping in the area of being able to provide information and advice in the area of oil transportation.

Currently, I own property in both Valdez and in this area, actually about Mile 93, I own some property there. So I feel comfortable in speaking both as a property owner and also as the Executive Director of the Prince William Sound Regional Citizen's Advisory Council.

I had planned to comment on some of the concerns RCAC has with this 1,700 page DEIS report but I'm going to limit my comments tonight to just two points that I feel are very important.

Just before I left Valdez to drive up here for this hearing I was handed a BLM press release indicating that the extension of time requested by numerous Alaskan groups and individuals was denied. Denied at a time when the hearings are in progress and it is quite apparent that Kathleen Clark, BLM director has no interest in the thoughts or opinions of Alaskan citizens. I am the director of a well-funded group with 16 employees and we could not adequately assess this

161-1

document in the time frame that we had. There is no way that citizens without our resources can read and evaluate this DEIS report. It is an insult that BLM has denied this extension period of time when they are taking testimony and hearing that this is one of the more frequent requests that they're receiving. It is an insult that these hearings are being held during a time when many concerned citizens are busy with subsistence food gathering, commercial fishing, tourism and other activities that must be done during our very short summer months. And it is an insult to the many people who suffered in the 1989 oil spill that this DEIS report states that the economic benefits of the 1989 spill offset any damage to fisheries and tourism.

161-1 (Cont.)

161-2

This DEIS report portrays oil spills as good for the economy. Tom Kuckertz who has been at three of these hearings and I suspect he'll be at least one more has pointed out many problems with what we have found in doing extensive study in a very short period of time on this report. And it seems imperative that the citizens that are concerned about this be given enough opportunity to be able to study it and respond to it. An underlying principle for the RCAC is that those people with the most to loose from an oil spill should have a say in oil transportation issues. The time frame given

161-3

for review and comment of this DEIS report is inadequate and suggests that decisions have been made and that there is little desire for meaningful input from citizens who will be most affected if an oil spill should occur. 161-3 (Cont.)

This brings me to my final point for this evening. There is a critical need for a citizen's advisory group for the pipeline. People living in this area need a well-funded, independent organization similar to the Prince William Sound Regional Citizen's Advisory Council to observe what is taking place regarding pipeline issues to verify that what they are being told is correct. To provide objective advice to both industry and citizens and to inform industry and citizens of both potential and real problems with the pipeline and to suggest solutions to these problems. 161-4

In summary, I feel that BLM made a serious mistake in denying an extension of this review period and it is time for a citizen's advisory council to be funded for the pipeline. 161-5 161-6

00162

Thank you.

HEARING OFFICER GEARY: Thank you, Mr. Devens. Walter Parker.

MR. PARKER: Walter Parker. I testified at Cordova and Valdez.

The first point I wish to make tonight is

a bit of a reiteration but it is buttressed by new information. The complacency that's reflected in the DEIS is not justified by the record, you've heard that over and over. And it's a point that will continue to be made in near history and possibly history several years from now if this goes ahead as presently planned.

The State complacency has been present for the past eight years as the State has done everything possible to mollify the oil industry in all of its aspects carrying over t the pipeline also. And Federal complacency was not so bad until recently but a combination of deregulation and streamlining is going to remove probably ever safeguard that exists. I was a Fed for a long time, designed the national air system with the help of a thousand other guys and watched the '78 Deregulation Act dismantle it. I watched the telecommunications industry dismantled, too, by the Deregulation Act. They were saved for awhile by technology. And this TAPS pipeline, which I've been involved in its development and oversight for well over 30 years, watching it and its oversight be dismantled by budget cuts and the refusal to take a strong political position and the JPO cannot take that strong political position. Those who the JPO works for, all 14 agencies or so have to take them.

162-1

Brings up another point when the JPO was created, I wish I'd brought it up then but we had a lot of other things on the plate. I think that an independent oversight organization which has to take all the heat itself is badly needed in this. The budgets, split as they are, some Federal and some State input mostly coming through pass-throughs from industry are not going to stand up under the type of complacency, as I said, that's reflected in the DEIS. 162-2

I'd like to get to the Copper River Basin now. When we went through design review and developed the stipulations for TAPS, the Copper River Basin was in many ways the toughest because of the fragile permafrost in this area, often, you know, running well over 28 degrees, sometimes well over 29 and it was difficult to design the VSMs, it took a long time designing them to meet those kind of conditions. And I see nowhere any strong review of the VSMs and I'll keep coming back to this point because I've been involved with the Arctic Climate Impact Assessment ever since it got started and was in the program when global change before that, and I'm chairing a circumpolar infrastructure task force which works with eight nations and 29 regional governments in the north on these problems now and we're getting reports constantly about the problems of rapidly 162-3

increasing permafrost temperatures and the increase in the thaw lawyer is creating. And the Deadhorse airport is one of those that's been reported as showing signs of deformation that are bothersome. So the industry, I realize is taking some steps, but they're holding their information in-house so we have no idea how good it is except occasionally will chat over a bar or over a dinner but have no real idea of what is going on there.

162-3 (Cont.)

And that leads us to the absolute need for the audit which we requested on both the technical aspects of the pipeline, its materials and also the audit that I called for last night on the human factors. We've come a long way in the Sound but have a long way to go on the river crossings. And after I get more information together we'll get back to that one.

Director Clark has given us all a disservice by casually tossing this off, since it's already completed, why, what can possibly go wrong, we have the best of all possible worlds and nobody, like I say, that was, as Stan Stephens and John Devens pointed out, that was the feeling before the Exxon Valdez and when I was chairing the Alaska Oil Spill Commission why we took 1,300 pages, almost as many pages as you took on your DEIS recounting the failure of the oversight of the Federal and State agencies and of Alyeska Pipeline. And

as I've said, I've seen that kind of complacency creep back into the system so I'd advise you to take a quick run through the Spill Commission's report again and realize that it can happen to you here tomorrow.

We predicted that the next oil spill in Prince William Sound based on world-wide figures and you don't want to pay too much attention to this but August 14th is the anniversary date of the next catastrophic oil spill in Prince William Sound if the figures work out. But those were just something we did for fun but just to remind people it can happen again if you relax. 162-4

Thank you.

HEARING OFFICER GEARY: Thank you, Mr. Parker. Doug Vollman. 00163

MR. VOLLMAN: My name's Doug Vollman. I am a writer for the Copper Valley Bi-Weekly but I'm not here to testify for the Cooper Valley Bi-Weekly Newspaper.

I'm here to testify because I'm a 17 year resident of Alaska, 10 years were spent in Valdez. I was involved in the fishing industry for those 10 years as a commercial fisherman, in the end a deckhand, a shrimp fisherman in particular. I've lived here in the Copper Valley for seven years and I'm involved with fisheries in another aspect. But I have not read the 1,700 pages of

the Environmental Impact, but I plan to when I get a chance.

But my comments would be that the economic impact of a potential spill or a spill is far greater than you believe. I can look back at the Exxon Valdez Spill and, certainly there's been a lot of misinformation out there on how great it was, an economic boom to Valdez and I can tell you that that is bull. The only people that made money on that spill in the end were industry themselves. They brought hundreds of boats in, it was a Good 'Ol Boy network and, including our own president or sitting vice-president at the time George Bush had numerous boats involved with the oil cleanup. His podamarine got the first response when SERVS was first formed, podamarine was involved in the first contracts on that. 163-1

But my main concern is who of you is going to be responsible?

To this day, as a shrimp fisherman, my loss has never been addressed. The other day in the mail, after 13 years I got a claim form addressing pot shrimp fishing in Prince William Sound asking me to provide my W2s or 1099s from 1985 until the present in order to address my claim. Now, luckily, the fisherman I worked for has all of his catch records, we called, they

told us, okay, you don't have to provide us all your tax forms, write us a narrative of what you did and what you caught and we will -- but my point is that each and every one of you, in my mind, if you renew the pipeline without looking into the economic impact of a disaster and set up some kind of adequate responsibility for the operators of the pipeline, you are all responsible for the losses that people are going to suffer and especially in this area, the subsistence losses will be far greater. 163-2 163-3

We've already culturally, you know, I wasn't here during the building of the pipeline but I have many friends that grew up in this area and have seen a definite change in their lifestyle since the pipeline. You know, I, for one, want to see the pipeline renewed but I want these economic impacts addressed because to this day, Exxon, which is a partner in Alyeska has not adequately compensated the people that were truly affected by the spill. And this talk of how great a boom it was, I don't know if any of you lived in Valdez at the time of the oil spill or after, but I saw no economic boom. I saw devastation in a lot of its people. I went to Cordova after the spill and to this day they have not recovered mentally, spiritually, sociologically from the oil spill. And I would hate to see what would happen in this area, to the people, if there was inadequate 163-4

response to an oil spill.

So I just want to reiterate that I'm not here to tell you not to renew the pipeline because I certainly want it renewed. I think that it's a necessary thing in this state, but I want these economic impacts addressed because to this day -- and I think that the JPO has responsibility to put pressure on Exxon, in particular, to settle, it's been 13 years. And, you know, on one hand we've allowed them to combine, you know, there's been mergers, Exxon-Mobil, never were their liabilities, were they called, you know, to own up to their responsibility. They've delayed it in court. They're asking, you know, they've won in court recently on getting the judgment reduced. But each and every one of your entities has received their money from Exxon. There was a billion dollars out there that you all received that none of us that were truly affected by the spill received. So if and when there is another environmental problem, I will personally come and find you people and ask you to start coughing up some of the costs of the devastation that will occur.

So I want to tell you thank you for hearing me and hopefully you will give us a little more time because working in the summer it would be pretty hard to read 1,700 pages let alone 17 pages without

163-5

falling asleep at night. So I would hope that you'll extend the comment. I was pretty disgusted when I heard the news today, driving home from work, that you had already decided that the comment period doesn't need to be extended and you'll address all these problems adequately, well, we have a lot of concerns and hopefully you'll allow us the time to read these documents and comment further.

163-5 (Cont.)

Thank you.

HEARING OFFICER GEARY: Thank you, Mr. Vollman. Richard Fineberg.

00164

MR. FINEBERG: Good evening. Richard Fineberg for the Alaska Forum for Environmental Responsibility.

I do note that I have, since 1996, tried to get JPO to do meaningful trending in pipeline problems. I can spot a trend in my third night of testimony that has me very worried. I began the first night with a small document, the second night too, and tonight with this. I think we've got a bad trend.

Last night I submitted for the record a copy of my June 2002 report on the pipeline for the Alaska Forum. I am providing you, tonight, for the record a written copy of those remarks.

HEARING OFFICER GEARY: Thank you. I'll

go ahead and mark your comments from July 30th as Exhibit 22.

(Hearing Exhibit 22 marked)

MR. FINEBERG: Tonight, I wish to refer you to three specific sections of the report I introduced last night to ask two basic questions for the record.

The first is the short section on reliability centered maintenance which Stan Stephens, Walt Parker and I discussed last night. The pages are Pages 47 and 48. With reference to the specific questions I raised about RCM last night, I note again that the DEIS and the State reports placed reliance on RCM impose this question. By what means, if any, have BLM or ADNR assure that an RCM procedure, i.e., either can or will mitigate prenitious effects of owner cost-cutting on TAPS? 164-1

I would also like to know by what measures you determined that economics and the operational organization are beyond the scope and where the citizen is supposed to go at that point if they are beyond the scope? I think we have been told where to go. It doesn't feel very good. 164-2

Let me move to point number 2, which is, stability at Pages 49 through 52 of the report and Appendix B. Appendix B, by the way, is a report I 164-3

prepared and submitted specifically during scoping and I find no reference to it in the some 1,900 pages of State and Federal documents. However, it is my impression that Alyeska has acknowledged the validity of the report and subsequent to receipt of that report has begun to take actions on the questions raised in that report, not prior.

164-3 (Cont.)

I would very much like to see the EIS deal with the questions that citizens brought to you on the condition of the pipeline in good faith during the scoping. Specifically, and I raise that tonight because one of the two main areas concerning slope stability is in the Copper River Basin and as others have noted, the slope stability problem is most acute in the warm permafrost to the south ending at Mile 736 just below Pump 12 and directly then is the worst where the seismic threat is the greatest, the southern portion of the pipeline and where the largest earthquake in the history of the United States occurred in '64. And the two are directly related because the slope stability question includes cesium liquefaction.

164-4

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With that in mind I prepared the technical report which is included in the Emperor's New Hose as Appendix B, submitted it to the scoping conveners on September 20th, brought it to JPO, I believe the 19th,

if I'm not mistaken, specifically handed it to Mr. Remer because I knew that the RCM process was in process in Fairbanks and I thought they might be interested. I find no sign of any response in the report. Specifically, the -- and I will try to describe, if I can summarize, how I came to do that report and what the issues are, what some of the issues are. 164-5 (Cont.)

Please bear in my mind that one of my concerns on the pipeline is that Alyeska is chronically too slow to identify and mitigate problems of three kinds; operational, physical facilities and management problems. And all three are specifically discussed in my report and when I say, too slow, I use an objective standard of time. One of them is Squirrel Creek right here. When the problems at Squirrel Creek with the above ground pipe were identified, roughly 1990, they were probably identified soon after construction we believe it moved very soon after construction but nobody paid much attention until 1990, it was roughly a nine year hiatus between identification and repair. Objective measurement, I suggest nine years is too slow, subjective own opinion. 164-6 164-7

Again, we are committed to proper maintenance in the future. The corrective action program at Squirrel Creek was initiated by JPO and ordered only

after a risk assessment by Alyeska in July of 1999 determined the repairs were not necessary, then JPO came in. This does not give me confidence in the risk assessment program. I find nothing like it discussed. 164-7 (Cont.)

And since we're on the yellow light, let me simply say that you can find the discussion for those of you in the Copper, who have not had the time to look, Section 4.1.3.2.1, which is existing mitigation methods, 4.2.2, 4, 5 and 6, which is -- let me go to the table of contents because you have to hunt and peck to find them, which is impacting factors and 4.3.1 -- 4.3.2, which is proposed alternative action, that's the only place it comes anywhere near being discussed adequately in the alternative, not in the repairs where you think you would find it, the routine and preventative maintenance in the impacting factors. And it's not clear to me why those aren't 500 pages earlier in -- it's just not clear why they're buried in the different places in the report and they are in the process, when it is finally discussed, seismic is segregated from slope stability and the point is that the two are very closely related, not adequately dealt with at all. 164-8 164-9

I am very tempted to say I regret I spent the time and good faith of preparing the information I have prepared, thus far it seems to have been wasted.

Thank you.

HEARING OFFICER GEARY: Thank you, Mr. Fineberg. Janelle Eklund. 00165

MS. EKLUND: I'm Janelle Eklund and I live in Kenny Lake and I've lived here for 25 years and I'm representing myself -- actually I've lived here for 27 years. So I'm concerned about the pipeline and its aging and I have a few comments for the DEIS.

The public comment period of 45 days, I think, is way too short for such a lengthy document and I think that this comment period should be extended at least another 45 days. And also I got here a few minutes late so I didn't hear where this was advertised everywhere, but I just wanted to say that advertisement for public comment should also be done in the Lower 48 to ensure that everybody's included because we're all connected and we can all be effected by a spill. 165-1 165-2

Another point is I think it's very vital to set up an escrow account for dismantling of the pipeline when that time comes. If you just walk away without dismantling, then it would surely present an environmental disaster. 165-3

I'm very concerned about the catastrophic impacts to the environment due to a spill because of the aging pipeline and because of climate change or seismic 165-4

activity that could happen. The lives of everyone that live here plus the plants and the animals, the fish and the birds would be changed forever. And so I think that in the grants and lease agreement, they should establish a citizen's oversight group to ensure that the pipeline is maintained and operated in a safe way. And I also believe that there should be an evaluation and a technical review every five years by an independent party to make sure that we have a safe operating pipeline.

165-4 (Cont.)

165-5

In the last 25 years there have been advances in technology and science that can help to ensure that the pipeline is operated in a safe way and so in light of this, I think that the stipulations that are in the grant and lease agreement, that they should be thoroughly reviewed.

165-6

00166

Thank you.

HEARING OFFICER GEARY: Thank you. Bob Henrichs.

MR. HENRICHS: Thanks for the opportunity to speak. It's always nice to visit Ahtna country.

As I mentioned earlier in Valdez and Cordova, our tribes environmental and natural resource department for the Native Village of Eyak are going through the entire Draft EIS and the staff has assured me they will go through the whole thing and have our

comments done and get them in at the end of the comment period.

I'm the president of the Native Village of Eyak and we have over 500 members. We're the largest tribe in Prince William Sound. Knowing that we have resources that some of the other tribes in our region don't have, we've extended an offer of technical assistance to the other tribes and organizations in our region. And we'll make that offer of technical assistance also to the Prince William Sound Regional Citizen's Advisory Council.

And now I'll get to my written statement. Continuing to go over that draft EIS, we come to Section 3.2.5-12, states that, many Chugach Alutiiq earn wages through jobs or by pursuing commercial fishing but still pursue subsistence to supplement wage based economy. This does not reflect the central role that subsistence plays in the culture. A more accurate statement is that wages supplement subsistence. Further the Draft EIS states that the importance of the Chugach Native Heritage is evident in the frequent reference to kinship to social interaction. This is but one area where heritage is present. The arts and traditional knowledge are essential to the Chugach heritage but this Draft EIS makes no mention of them. This is interesting to note

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166-2

because of the comments made by JPO and Argonne National Laboratory representatives who stated in the scoping meetings that traditional ecological knowledge would be utilized in preparing the Draft EIS. This document demonstrates a lack of understanding of the fact that receiving wages and participating in a culture are not mutually exclusive. 166-2 (Cont.) 166-3

Section 3.25.1.1.2, Eyak. This section relies on one or two sources, neither of which are Alaska Native or tribally-based. The document states that Eyak were more commonly associated with the Pacific Northwest culture area, this does not reflect the fact that Eyak people regularly traded with those at Nuciiq and the Upper Copper River tribes. This section states that Eyak modified their system to become similar to the Tlingit. This statement implies that the Eyak Tribe do not have their own system. Further it is misleading to make this statement about one tribe and not all. Most tribes modify and adapt to the point that it's difficult to pinpoint which culture borrowed from the other. The Draft EIS states that the Eyak were separated by geographic barriers from the Interior, never mentioning access via the Copper River. Historical accounts of trade between Ahtna and Eyak people, via the Alaganik Village site exist and are still discussed among the 166-4 166-5 166-6 166-7

elders.

166-7 (Cont.)

We disagree with the emphasis being placed on degree of blood as evidence of heritage. Sociocultural systems are not defined by degree of blood. Further, many Alaska Native people do not claim their tribal ancestry during the era of assimilation in this country. To rely throughout the Draft EIS on census records that traditionally under count minority populations is an injustice to the tribes.

166-8

166-9

Similarly, to the section on Cordova subsistence, there is no mention of the Federally-recognized tribe of the Native Village of Eyak that has over 500 members.

166-10

There are numerous references made throughout this section to Alaska Native Corporations and the benefits and opportunity they provide. There is no discussion of the negative sides of these corporations, the struggles with bankruptcy, the lack of acknowledgement of the after-borns and the controversy surrounding selling corporation land.

166-11

Section 3.25.1.1.5 on the Koyukon. States the political awareness influence came with sedentary villages. This is incorrect. Seasonal occupation of sites by tribes in the past did not equate a lack of political influence or awareness. This section

166-12

points out how each Alaska Native village in the area of the Koyukon elects a chief and a village council as if all 229 Federally-recognized tribes in the state of Alaska do anything less. There is also mention of heavy reliance on traditional subsistence resource and respect for the elders, again, as if this does not exist among the majority, if not all tribes. This demonstrates unequal treatment of tribes and cultures in the Draft EIS. It also reveals a shallow treatment of the effects of the TAPS on cultural systems. 166-13 166-14 166-15

Section 3.25.1.2 Alaska Native Claims Settlement Act states that Alaska Native lived with little interference from the U.S. government prior to statehood in 1958. This is simply not true. Volumes have been written, particularly in Indian law that outlines the relationship between tribes and the Federal government. This section incorrectly states that the Alaska Native Claims Settlement Act extinguished aboriginal rights to Alaska lands. The Act, Title 43, Chapter 33, Section 1601 of the U.S. Code, states, that no provision of this chapter shall replace or diminish any right, privilege or obligation of Natives as citizens of the United States or of Alaska are relieved, replaced or diminish any obligation of the United States or the state of Alaska to protect and promote rights or welfare 166-16 166-17

of Natives as citizens of the United States or of Alaska. ANCSA extinguished aboriginal claims entitled to Alaska lands, not aboriginal rights. This is a subtle but very important difference. 166-17 (Cont.)

Thank you for your time.

HEARING OFFICER GEARY: Thank you. Thank you for your comments and I'm going to go ahead and mark them as Exhibit 23. 00167

(Hearing Exhibit 23 marked)

HEARING OFFICER GEARY: Linda Rutledge.

MS. RUTLEDGE: Hello. My name is Linda Rutledge and I'm a resident of the Copper River Basin, it's my home. And we all agree on the fact that an oil spill is devastating and really prevention is the only answer.

Walt Parker, Stan Stephens and other informed Alaskans have presented TAPS with six practical recommendations which address prevention. I won't go through them all but the one that particularly strikes me as important is a citizen's oversight group. We live here. This is our home. We will have insights, that you would not want us to be players in this amazes me. 167-1

Also the employees that work for the pipeline, that they would have in their grant and lease an opportunity to speak up on problems, to have a 167-2

troubleshooting area. This is your greatest resource, the people that are on the pipeline working day in and day out. I would just encourage you to use this as a practical way for prevention. 167-2 (Cont.)

Also to begin this new 30 year lease with an audit of the pipeline's current status, how it is, how it's structurally, if it is sound, that's, just to me, a practical means of prevention and I think that's the key word. 167-3

I think the six recommendations are a positive tool to help prevent an oil spill and I encourage you to just give more time in the review process and consider these. I really think it's our moral and spiritual responsibility to do so. 167-4

00168

Thank you.

HEARING OFFICER GEARY: Thank you. Julie Bator.

MS. BATOR: Good evening. I'm Julie Bator, Native Village of Tazlina and also representing the Ahtna Right of Way DEIS Review and Renewal Committee. Thank you for hearing me in case I don't get that in later.

We have many statements and I have about 12 pages and had to narrow down some of our major viewpoints and we will be submitting all of our comments

in writing, no matter what the deadline is, but we would like to exercise the response that I've heard many times tonight, that we are very disappointed in the lack of character shown for the deadline and I would just like that expressed, again.

I can say this as a person who works in the office at the Tazlina Village Office, we did not receive the complete DEIS until the 24th of July. That makes it very hard to comment during a public hearing on something that you have only a few days, a week to be prepared for. I was allowed a copy of the CD which I got from the BLM and that copy was received on the 12th of July, which still doesn't allow you much time to search and comment. 168-1

We also want to acknowledge that this is not enough time and it is an insult to review such a complex and important document. This deadline falls in the midst of our busiest subsistence gathering seasons and it's very difficult to collect people together to review and coordinate responses when you consider that food, then shelter and safety are unstated priorities.

The BLM did not have the authority to convey lands nor do they have the authority to continue to renew it or continue to administer it. This should be noted. 168-2

Facts collected by an outside organization, whom do not have the background and experience in Alaska Native or rural Alaska lifestyles and traditions should not have been chosen and should not be relied upon. 168-3

The DEIS states that oil spill response planning is a separate process. The oil spill response should be a part of the EIS and, the grant, the ability to respond should be required before the grant is renewed. 168-4

The executive summary states that the loss of revenue is the most significant of a spill. In the Copper River Basin, the most significant impact should be noted and isn't, that it would be subsistence, it would hurt us dramatically. There isn't a lot of people in our area that receive a direct impact of monetary gain from the pipeline running through our backyard but they would be significantly hurt with an oil spill. 168-5

It also should be noted that there needs to be locally equipped and trained certified spill response teams. The teams need to be State and Federally certified. APSC needs to provide the training and the funding and there should be some reference to this. 168-6

Because the Copper River Basin is in a 168-7

unorganized borough, the residents do not collect property taxes on TAPS, the State collects the taxes however the funds are not returned to the Copper River Basin and nowhere in there is that stated. 168-7 (Cont.)

We would like to see the pipeline have accessible oil spill contingency plans and we want to see a report and the teams actually go out and boom one of these four major rivers that crosses within our 55 mile corridor. We, at the village, had timed an approximate spill from the Tazlina suspension bridge for the time that it reaches the Copper River, at the headway there, would be approximately 57 minutes, that's not very much time and once it hits the Copper it effects all the way up to Mentasta and all the way down to Cordova and I really think that this needs to be stressed in that DEIS. The sites are not accessible. The vehicles are not there for the booming and it would be hours before that oil spill response team could, if it's even possible, boom one of these rivers. This needs to be noted as well. 168-8

Supplies and equipment need to be placed at sensitive sites. All moving bodies of water should be considered sensitive sites. 168-9

We would also like to see tribal involvement, participation on the JPO and funding for it. There is no reference in there to government to 168-10

government coordination and this is an insult to the Native tribes which have been acknowledged by the State and Federal government as sovereign entities and we demand this. 168-10 (Cont.)

If I've missed something, we've got a couple other people in the background and they'll pick it up afterwards.

The 20 percent hiring goal should be based on the payroll, not on the hours and that is also not noted in there. 168-11

The average Native hire for the last 30 years needs to be brought up to 20 percent. APSC is out of compliance with Section 29 and 30 and there's notice in the DEIS as far as we've been able to research at this point to reflect that. 168-12

The figure given for 3.72-6, the number of gallons should be a number that is actually feasible and is actually something that people can understand. That statement in that section is really mind-boggling and we'd like to see some clarification on that. 168-13

We would also like to emphasize that under Environmental Justice 4.3.97, the entire Argonne project should have been contracted out or at least consulted with Native corporations. This also is in reference to the government to government relations and 168-14 168-15

consultations. This is a major Federal action, no government to government consultation was given and by definition there should have been. Any Federal action that directly effects the tribe demands this. The pipeline runs right through our backyard, we're at risk, our lifestyle's at risk and if the pipeline is going to continue to run through our backyards, this must be considered and compensated for.

168-15 (Cont.)

Thank you.

HEARING OFFICER GEARY: Thank you for your comments. Robin Underwood.

00169

MS. UNDERWOOD: My name is Robin Mayo Underwood. My address is Mile 9.2, Kenny Lake, Alaska.

I'm a life-long Alaskan having been raised in Fairbanks during the heat of the pipeline boom and I now live in the Copper Valley where I have a young family and also a family business guiding rafting trips in the Copper River.

I want to digress with some family history if you'll indulge me. My father, Larry Mayo, was involved in the EIS process for the original pipeline Right of Way many years ago. He is a professional glaciologist with extensive experience with the Prince William Sound glaciers. And you can look up in the old documents that, in his opinion, one of the greatest

hazards posed by the proposed system was an accident involving icebergs from Columbia Glacier and an oil tanker and he specifically named this location, Bligh Reef. I do not want to say, I told you so, but I do want to say, I hope you are really listening tonight.

I would first like to state that I feel extremely unprepared for this hearing, it is the busy summer season. We received a copy of the Draft EIS and computer disk in the mail just a few weeks ago. I have barely had time to look at it much less give the thoughtful study it deserves. To my disappointment as I left for this meeting we received word that the comment period will not be extended as has been requested by interested groups statewide and I'd like to formally object to this. 169-1

It is hard to believe it was nearly 30 years ago that this state was changed forever by the construction of the largest ever privately funded construction project. Whether for good or bad is debatable but there is no doubt that the impact of TAPS on the state's economy, environment and culture has been and will continue to be huge. I would like to make it clear that my purpose in helping monitor pipeline activities is not to shut down the pipeline as has been accused. I am as dependent on petroleum as the next

person. Rather, I believe citizen involvement is important in ensuring that the pipeline is as safe and environmental friendly as it can possibly be.

Therefore, my first and most important recommendation is a citizen's oversight group similar to the one set up to monitor tanker issues in Prince William Sound be set up for the terrestrial portion of the pipeline. How ironic that it took the huge tragedy like the Exxon Valdez Spill to be the catalyst for starting the Valdez-based group. Let's extend that good idea to the rest of the pipeline before disaster strikes. 169-2

My family business is dependent on the wilderness character of the Copper River of which the pipeline crosses 76 tributaries. I believe greater priority needs to be given to stream crossings, spill prevention and response. Just a few years ago my husband attended one of the first containment boom drills on the Tonsina River at age 25 of the pipeline. I don't know what they were going to do for the past 25 years. The crew took approximately eight hours to deploy boom. In a river flowing 10 miles per hour, it does not take a rocket scientist to realize the response was ridiculously inadequate. I encourage major research and innovative thinking in improving the safety of the stream crossings. 169-3

In the past Alyeska has been reportedly 169-4

unresponsive and even abusive to internal whistleblowers. I would like to see a formal program to address employee concerns as they are on the front lines and know more about what is really going on than any outside observer. 169-4 (Cont.)

I would like to see the dismantling, removal and restoration funds be placed in an escrow account to ensure proper completion of the pipeline project when the time comes. In this era of corporate instability a promise is not enough. 169-5

Finally, I would like to see the stipulations include independent comprehensive field audits at five year intervals. These audits would not only scrutinize current levels of compliance with the promises so easily given on paper but would also address whether current technological advances are being taken advantage. One has only to compare the '70s and 2000 computers and automobiles to know that there have been dramatic advances in the past 30 years when the pipeline has been in operation. We can only imagine what the next 30 years will bring and it is important that the Alaska oil industry take full advantage of the new technology and not trundle along with the dinosaur. 169-6

Thank you for your time and attention.

HEARING OFFICER GEARY: Thank you, Ms. Underwood. Aaron Underwood.

MR. UNDERWOOD: Hello. My name is Aaron Underwood and I live at Mile 9.2 Kenny Lake, Alaska.

As an Alaska resident and wilderness tour operator I am very concerned with the status of the pipeline and have been actively involved in citizen monitoring of spill drills and other activities for several years in the area. I believe that there should be a thorough and complete audit of Alyeska's operational procedures including a complete physical status report of the pipeline, which includes documenting the changes of the climate since the designed baselines in 1973 to the current climate profile of 2002. 170-1

I believe Alyeska needs to be audited for public review physically and operationally every five years of extended life of the pipeline and lease contingent on the performance monitored by a citizen's advisory council representing local people and interests. 170-2 170-3

I am distressed that my concerns expressed at the scoping meeting last fall have not been addressed.

They include the failings of Alyeska's contingency plan to address adequately a spill into the Copper River, along with preventative actions that Alyeska could take to ensure the safety of the pipeline. 170-4

Finally, I believe that since 20 percent

of our Nation's daily oil needs and virtually all of the state of Alaska's budget revenues, not to mention the national treasure of Alaska's grand wilderness at risk, the Trans-Alaska Pipeline needs to be the most absolutely safest pipeline for the environment and the people of this nation.

I would like also to state my support and concurrence with the seven recommendations presented by the Alaska Forum of Environmental Responsibility.

I appreciate the opportunity to participate in this process. Thank you.

HEARING OFFICER GEARY: Thank you for your comments. All right, we're going to take a 10 minute recess. Anyone who would like to speak after the recess, please sign up at the back table. We'll reconvene in 10 minutes.

(Off record)

(On record)

HEARING OFFICER GEARY: All right, I want to call this hearing back to order. We have no additional folks signed up to testify at this time, is there anyone else present that would like to testify? Yes, ma'am, please come forward. If you'd please state your name so we could record it.

00171

MS. McHENRY: Good evening. My name is

Ruth McHenry and I live at Mile 17 at Kenny Lake and I'm a 56 year Alaska resident.

I have read a bit of the DEIS but not as much as I would like to because it's not compatible with my computer software. I still hope you will grant us more time to read this long document. I am a member of a local conservation organization, Copper Country Alliance. Our members have put in many volunteer hours learning about Alyeska's operations. Let me assure you we don't do this out of boredom or peskiness. The mission of our organization is to try to protect the wild and rural character of this region and the habitats upon which those depend. 171-1

No single event, short of an atomic bomb would have such a devastating effect on those values as an oil spill that reaches the Copper River. After witnessing two spill drills, one at the Tonsina River and one at the Klutina River, I am unhappy to conclude that an oil spill that reaches a tributary of the Copper River will be unstoppable. It will reach the Copper River. At the Tonsina River, seven hours past between the time crews assembled at Pump Stations 11 and 12 and the time that the boom was in place. At the Klutina River, the spill scenario called for oil to reach the Klutina River in about an hour and the Copper River shortly after that. 171-2

The distance is one to one and a half miles and the current is at least five knots. Again, it took hours for the boom to be deployed. Then there is the question of whether boom, once in place, would actually be able to contain oil in a turbulent river, we don't know that. 171-2 (Cont.)

After witnessing the first drill, I urge that more time and money be spent on crew training and for a hot shot spill response team to travel up and down the pipeline training local crews and being ready to assist at a real spill at any location. After witnessing the second drill and becoming convinced that oil is unstoppable once it reaches moving water, I shifted my focus.

Now, I'm convinced that pipeline safety demands and the EIS must require the following:

1. Better maintenance.

2. Better detection.

3. Better response readiness with an aim to stopping oil before it reaches the water.

Let me take these one at a time.

Better maintenance. Locally, the leaning VSMs and badly off-center shoes at Squirrel Creek were an example of what can happen when permafrost thaws. We don't know whether that happened because of climate changes or because the heat pipes weren't working well 171-3

enough. To Alyeska's credit, they did go in and sink the VSMs another 20 feet to make them more stable. But it is disconcerting that they didn't know when the VSM movements had taken place and that they thought it might have happened in the first 10 years. With good maintenance Alyeska would have known and it should have fixed the problem earlier, not 23 years after the oil started flowing. 171-3 (Cont.)

Is Alyeska adequately monitoring movements now? How many other leaning VSMs and off-center shoes are there? How many other locations are at risk? As far as I know, Alyeska has not been able to answer that question.

This is just one of the many reasons why the pipeline needs to be audited mile by mile and why an independent evaluation should be done every five years. 171-4

Better detection. For the first years of the pipeline's life, the entire line was flown daily. In the past decade up until September 11th, it was flown weekly and if the weather was bad on the flight day it wasn't flown until the next week. I understand that it is being flown more often now, but as memories of September 11th fade, will frequency slip again? And if overflights were adequate, why didn't Alyeska find the major pipe shifts in the year 2000 at Atigun Pass and 171-5

2001 at Pump Station 5. It should be obvious that detecting a problem early can make the difference between a minor incident and a devastating spill.

171-5 (Cont.)

Better response readiness. This includes equipment, people and site preparation.

Equipment. Clamps that work at higher pressures and more of them. Equipment and materials for protecting spilled workers from fumes so that there is less waiting time before plugging a spill.

171-6

People. I still think a hot shot crew is a good idea but it would focus on keeping oil from reaching the water. It's only jobs would be to be ready to respond to a spill and to train local crews.

171-7

Site preparation. This includes plowing pipeline access roads. During winter you can find APLs that are plugged with snowberms days or weeks after a snowfall. It includes making sure there are staging areas at critical points. It includes placing containment berms at creeks and river crossings. In short, it means expecting a spill and figuring out in advance what is needed.

171-8

To make sure all these things happen we must have a citizen's oversight group. Such a group has greatly improved the situation in terminal and marine operations but that was after the Exxon Valdez Spill had

171-9

already occurred. Are you going to make us wait until there's oil in the Copper River before you mandate a similar group for the pipeline? 171-9 (Cont.)

Now, perhaps you will blow off these suggestions as being beyond the scope of the EIS. I've got to tell you that I'm disappointed in you folks, the way you blew off scoping suggestions in the DEIS. Some were blown off by way of your section of alternatives and issues considered but eliminated from detailed analysis. Many others you disdained to even list in the DEIS, they were in a separate eight page report. Would an eight page addendum to this huge DEIS done any harm? Are you going to listen to TAPS owners? Are you going to only listen to TAPS owners? They were the only reference you cited in Chapter 2, the chapter in which you dismissed good ideas like a citizen's oversight group, fines for TAPS owners when they don't perform and requiring a pipeline audit as part of the renewal process. 171-10

I know how I'm going to feel if I see oil on the Copper River, I'm going to be heartsick because this is where I live and where I intend to live out my life. I'll also be furious if you folks haven't used the power you have to make this a safer pipeline. You have the power, use it.

And finally, I want to thank all the

people who showed up. It's a beautiful sunshiny day in the Copper River Basin and these people took time out to be here and I want to say good for you, good for us.

HEARING OFFICER GEARY: Thank you. All right, any other speakers? Sir, come forward. Have a seat and then state your name, please? 00172

MR. JUSTIN: My name is Wilson Justin and I am here as Chesna, a tribal councilmember, a tribal council about 48 miles from here and I also am here as a speaking member of a coalition of tribal councils in the pipeline corridors who have been tracking and monitoring this activity for several years. And finally I work for Mt. Sanford Tribal Consortium as a vice president. And in addition to that I have a vested interest, I believe, as a person, as a person who lives on the river. My family has participated in the economy, both subsistence and cash of this region as long as there's been economies.

I don't have any prepared statements for you. But the Chesna Tribal Council will be reviewing the document that's at hand and we will be forwarding our comments and those comments will be extensive. You have heard from a number of concerned individuals and representatives in the area of the deficiency that this process has underlain in terms of the renewal and we will

be directing our comments in the future, written. But tonight I wanted to underscore a couple of items that caught my attention that I think should be reiterated over and over.

The first one, I'd like to thank Mr. Bob Henrichs for bringing to your attention the subtle but very important wording that he bought and used in terms of the Alaska Native Claims Settlement Act. Now, I worked with ANCSA since its passing in 1971 and I have always said that the Act was merely a settlement of claims, it did nothing in terms of removing the rights and the special consideration that the United States government has with all indians, whether or not they are represented by a tribe or enrolled to a tribe. The very fact that you're a North American Indian is sufficient in my estimation to invoke the special trust relationship with the United States government. I hold the United States government ultimately responsible for the activities along the pipeline. I have the criticism leveled at Alyeska, but they are just contractors. They just do the work. Ultimately it's the United States government that has the trust responsibility to come here and say, Mr. Indian, we'll guarantee you the safety of the fish that swims in the Copper River that you depend on for your nutritional needs. We'll guarantee you the

172-1

subsistence activities in the zone that the pipeline runs through will not impact your family negatively. We'll guarantee you that Alyeska will hire the promise of 20 percent and we do not count contractors in that estimation. Contractors should never be counted in terms of the numbers used for hiring in the pipeline. It was Alyeska that came into being with the promise that 20 percent of the hire will be Native, it wasn't the contractors that they hired to do the work, Alyeska only. And I submit that the United States government has the ultimate responsibility to say to Alyeska, irregardless of whether we renew this permit for TAPS or not, that responsibility came into being the day the pipeline was signed into law and it was never relieved of anybody.

I know that the Joint Pipeline Office often times get criticized for, for instance, there's a lot of criticism about the shortness of the comment period and it's very valid in my estimation but I also know that the Joint Pipeline Office doesn't set those schedules. Ultimately everybody answers to the Federal government in terms of what the Federal government wants to do. 172-2

And I like what the young lady said here before about holding you also responsible. I think that individually, irregardless of how this works out, I think

individually you do have a civic responsibility to the citizens of this state to act on their behalf, to be watch dogs, to represent the citizens as citizens and not simply be what we would call a stalking horse for the industry. The industry is powerful. They're wealthy. They don't need friends. They don't need protectors. They don't need even laws. So why should we, as citizens empower you as regulatory persons to interact on our behalf and yet be considered shields for the industry. And I don't mean to be speaking this way in a personal manner, I worked for the oil industry. I spent two years on a terminal as an oil spill response superintendent. I have technical background and knowledge of booms, of river crossings. I have technical background and knowledge of safety activities on the pipeline. I spent two years emersed in the job and I know a lot about it. But this is neither the time nor the place to talk about how much I know. This time and this place should be spent telling you that when a citizen comes before you, it is expected that the citizen will be given full attention. There should be no citizen of this nation or of this state that comes here and says I am disappointed that the decision was made without my participation on the length of this process. And I think that in the final analysis, irregardless of how well and how good the

172-3

pipeline is put together and run and maintained, the selling out of the basic right of the citizen to participate in decisions effecting them in their own country has fatally flawed the entire process to the point where I don't think in the future we really are going to get much benefit from this process. 172-3 (Cont.)

In essence, what I'm saying is that this process should have been a citizen and a tribal government process. That was owed to us. It was promised to us. We were under the impression that the law that obligated those things to us could not be broken. And I think in the final analysis that the JPO should have been the first one to say, hey, it's our job to ensure that you, the little guy gets first crack at this. And I'm a fast reader, I can plow through that 1,700 pages in about five days. There are friends and relatives and family members out there who couldn't do it in six months. There was 30 years preceding this time and there'll be 30 years after and I don't regard it as a big problem to have given the entire process and review of the DEIS one year, at least. 172-4

I'm going to stop there and I want to thank you for your attention and the opportunity to speak. I was not going to speak but I felt that hidden and underneath a lot of what was being said was that

issue of the citizens of the state and Indians of this nation not being given their just due, was being overlooked and I wanted to bring that to your attention. I thank you again for the time.

Thank you.

HEARING OFFICER GEARY: Thank you, Mr. Justin. Any additional speakers? Seeing none, I shall adjourn this meeting until 7:00 p.m., on Monday night in Anchorage. Hearing's adjourned.

(ADJOURNMENT)

C E R T I F I C A T E

UNITED STATES OF AMERICA)
)ss.
STATE OF ALASKA)

I, Joseph P. Kolasinski, Notary Public in and for the state of Alaska, and reporter for Computer Matrix Court Reporters, LLC, do hereby certify:

THAT the foregoing Bureau of **TAPS Renewal DEIS Hearing** was electronically recorded on the 31st day of July 2002, in Glennallen, Alaska;

That this hearing was recorded electronically and thereafter transcribed under my direction and reduced to print;

That the foregoing is a full, complete, and true record of said testimony.

I further certify that I am not a relative, nor employee, nor attorney, nor of counsel of any of the parties to the foregoing matter, nor in any way interested in the outcome of the matter therein named.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 9th day of August 2002.

Joseph P. Kolasinski
Notary Public in and for Alaska
My Commission Expires: 04/17/04

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Responses for Document 00159

00159-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00159-002: The source material used for preparation of the EIS is extensive and diverse. All references cited have been peer-reviewed. Additional citations have been included in the FEIS.

00159-003: Section 3.11.3 cites research by Dr. Short and also presented other studies with different results. The EIS does not support one side or the other in this current scientific debate, but chooses to present both sides.

00159-004: Additional references and discussion of the ecological impacts of the Exxon Valdez oil spill have been added to Section 4.7, "Cumulative Effects."

00159-005: Section 3.22 has been modified to indicate that sea otters are considered to be recovering from effects of the spill.

Section 4.4.4.11 summarizes the current status of several indicator bird species (including the harlequin duck) regarding their recovery status from the Exxon Valdez oil spill. This information has been revised to reflect the Exxon Valdez Oil Spill Trustee Council's most recent status update.

Additional discussion and citations pertaining to effects of oil on fish resources have been added to Section 4.4.4.10.

00159-006: Table 3.13-6 of DEIS (page 3.13-10) lists the total estimated potential emissions of hazardous air pollutants (HAPs) from the Valdez Marine Terminal as 122.9 tons/year. Table 3.13-3 of DEIS (page 3.13-6) lists the total estimated potential emissions of volatile organic compounds (VOCs) from the Valdez Marine Terminal as 3,464 tons/year.

00159-007: Sections 4.3.13, 4.5.2.13, and 4.6.2.13 present potential health impacts associated with the exposures to ambient concentrations of benzene, toluene, ethyl benzene, and xylene (BTEX) in Valdez area under the proposed action (at the crude oil throughput levels of 0.3, 1.1 and 2.1 million bbl/day) and other alternatives. These potential health impacts were estimated on the basis of conservatively high ambient concentration estimates of BTEX and other toxic air pollutants emitted from the BWTF and other sources at the Valdez Marine Terminal. As described in Sections 4.3.13.2, 4.5.2.13 and 4.6.2.13, the increased lifetime cancer risk at Valdez residential locations and for all assumed future crude oil throughput would be essentially the same and below levels of concern established by the EPA.

00159-008: Certain literature cited in the DEIS such as the report by Goldstein et al (1990) is old. However, old literature can be useful if it provides information relevant to the current situation when more recent data are not available. The case in point is the use of ambient concentrations of benzene, toluene, ethyl benzene, and xylene (BTEX) in the Valdez area monitored during the personal and ambient monitoring studies and the tracer studies conducted in the Valdez area during the 1990-1991 period. Because these data were obtained during the time when both the vapor emissions from tankers and the BWTF were released, they represent conservatively very high estimates of current ambient concentrations of these HAPs.

00159-009: The cumulative impacts of air emissions from the Valdez Marine terminal are described in Section 4.7.

00159-010: Potential future health impacts associated with the exposures to ambient concentrations of benzene, toluene, ethyl benzene, and xylene (BTEX) in Valdez area under the proposed action (at the crude oil throughput levels of 0.3, 1.1 and 2.1 million bbl/day) and other alternatives are presented in Sections 4.3.13, 4.5.2.13, and 4.6.2.13.

00159-011: Thank you for your contribution. We reviewed thoroughly the report "Valdez Marine Terminal Air Quality Oversight Project, Phase I," by Environmental Solutions (May 2002).

00159-012: The EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms.

Instead of stating that BWTF effluent is unlikely to impair sediment quality, the EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts.

00159-013: While we recognize that the PWS RCAC has recommended that NPDES permit levels for the BWTF be reduced, the EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms.

00159-014: The EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of total PAHs in sediments are below the sediment quality guidelines for marine sediments. The methods used by Feder and Shaw (2000) to detect total PAH concentrations in sediment were sufficiently sensitive to allow comparison to the sediment quality guidelines. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms.

Instead of stating that BWTF effluent is unlikely to impair sediment quality, the EIS was revised to state that sediment concentrations of PAHs in sediments and water due to BWTF operations are not expected to change substantially as a result of the proposed action and to cite and discuss results of the recent monitoring efforts.

00159-015: Thank you for your comment.

00159-016: The EIS correctly identifies that BWTF discharges are below current NPDES permit limits and that concentrations of monitored chemicals are within levels established. This does not mean that there is not some accumulation of PAHs in sediments surrounding the BWTF diffuser near the VMT, just that those levels do not exceed the current sediment quality guidelines for protecting aquatic organisms.

Responses for Document 00160

00160-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00160-002: Under the Federal Grant, APSC is responsible for maintaining and operating TAPS safely and in a manner that is sufficiently protective of public safety and the environment. (See Grant Stipulation 1.21.1.) Except for contingency planning where Alaska regulations specifically call for an evaluation of the adequacy of resources (equipment as well as personnel) by regulatory authorities, APSC alone has the responsibility for developing appropriate management practices and operating procedures and committing adequate resources to successfully implement those systems. However, in its oversight capacity, the JPO does have the opportunity to evaluate the adequacy of APSC's operating practices and does consider resource commitments (both equipment and personnel, including levels of training) as part of the root cause analyses it performs for all identified operational deficiencies. The JPO also has authority to require APSC to develop and submit for JPO approval, a corrective action plan that may also include implementing resources. It is inappropriate for the JPO to direct the application of specific types and amounts of resources for TAPS operations. APSC retains the sole responsibility for committing sufficient and appropriate resources to meet its obligations under the Federal Grant and its stipulations. See the text box in Section 4.4.4.3 for a complete discussion of oil spill contingency planning in the Copper River Drainage.

00160-003: Impacts to two tributaries of the Copper River (Gulkana and Tazlina Rivers) are discussed in Section 4.4.4.3. Additional information on the Copper River Drainage can be found in the text box “Oil Spill Planning for the Copper River Drainage" in Section .4.4.4.3.

00160-004: VSM stability is obviously critical to TAPS integrity. As such, it is the focus of extensive monitoring and surveillance. JPO oversight ensures that VSM stability is maintained.

The DEIS considers the status of the heat pipes and efforts to maintain their function. APSC began an experimental program in the fall of 2000 to measure the heat transfer performance of blocked heat pipes (Sorensen, et al. 2002). This program was implemented because of the large number of heat pipes and the increasing number of heat pipes with blockage; it is important to identify those actually needing repair. The test program did obtain the data necessary to determine TAPS heat pipe thermal degradation as a function of hydrogen blockage, and these data are being used to identify heat pipes needing repair to meet design requirements. The test results indicate that the loss of heat transfer functionality as a result of hydrogen blockage is less serious than anticipated. For example, from Fairbanks south to Thompson Pass along the southern part of TAPS, it was originally thought that 6,500 heat pipes out of 62,000 installed in the VSMs in that area might need repair. Instead, it was found that only 2,000 were functioning so poorly as to need maintenance (Bradner 2002b).

00160-005: The original seismic design has been reviewed and updated several times on February 15, 1995, March 31, 1997, June 30, 1997, August 16, 1999, December 21, 2000 and February 14, 2001 by APSC for the adequacy of TAPS criteria. JPO oversight ensures that the stability of the elevated pipeline supports (VSMs) is maintained. See Section 2.5 of the FEIS in which the need for additional audits is discussed. Also see Sections 3.4 and 4.33 for discussions of the November 3, 2002 earthquake.

00160-006: Under the Federal Grant, APSC is responsible for maintaining and operating TAPS safely and in a manner that is sufficiently protective of public safety and the environment. (See Grant Stipulation 1.21.1.) Except for contingency planning where Alaska regulations specifically call for an evaluation of the adequacy of resources (equipment as well as personnel) by regulatory authorities, APSC alone has the responsibility for developing appropriate management practices and operating procedures and committing adequate resources to successfully implement those systems. However, in its oversight capacity, the JPO does have the opportunity to evaluate the adequacy of APSC's operating practices and does consider resource commitments (both equipment and personnel, including levels of training) as part of the root cause analyses it performs for all identified operational deficiencies. The JPO also has authority to require APSC to develop and submit for JPO approval, a corrective action plan that may also include implementing resources. It is inappropriate for the JPO to direct the application of specific types and amounts of resources for TAPS operations. APSC retains the sole responsibility for committing sufficient and appropriate resources to meet its obligations under the Federal Grant and its stipulations.

00160-007: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

Responses for Document 00161

00161-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00161-002: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00161-003: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00161-004: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00161-005: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00161-006: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

Responses for Document 00162

00162-001: The existing Federal Grant and applicable regulations provide the BLM with ample authority to obtain resources for compliance monitoring on a reimbursable basis.

00162-002: The reader is referred to Section 2.5 of the FEIS, Alternatives Considered but Eliminated from Further Analysis."

00162-003: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00162-004: Thank you for comment.

Responses for Document 00163

00163-001: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00163-002: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00163-003: The Federal Grant and authorizing legislation (TAPAA) provide unprecedented authority to BLM in assuring the protection of human health and the environment. The BLM establishes stipulations that are the guiding conduct of operations for the operator of the TAPS.

00163-004: Text has been added to Section 4.7.8.3 of the FEIS providing additional sources of information about the impact of the Exxon Valdez oil spill (EVOS) on communities, including intangible impacts, such as psychological stress, and in the fisheries, recreation, and tourism industries in the Prince William Sound area. In addition, compressed overviews of selected impacts of the EVOS have been added to Sections 4.7.8.1 and 4.7.8.2.

00163-005: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

Responses for Document 00164

00164-001: The BLM is committed to RCM and believes that this process represents a pro-active approach to oversight and regulation of the TAPS. In addition, RCM is widely used in the airline and other industries as a tool for reducing risk of failure to critical system components. Reducing risk in TAPS critical systems directly translates to reducing safety and environmental risks. Risk will always be present, but RCM will help reduce that risk.

00164-002: It isn't clear what is meant by the comment that economics are beyond the scope. To the contrary, detailed economic analyses occur throughout the EIS, for example, in Sections 3.23, 4.3.19, 4.4.4.13, 4.5.2.19, 4.6.2.19, and 4.7.8.3.

The reader is directed to the discussion of escrow funds found in Section 2.5.

00164-003: Comments received during scoping are aggregated into a record of public scoping and are used to frame the issues and the analyses in the DEIS. All scoping comments were considered in preparing the DEIS. Scoping comments are not listed and identified individually or responded to in the DEIS. Comments received on the quality of the analysis in the DEIS are addressed specifically in the FEIS and may result in text changes in the FEIS as well.

Many of the peer-reviewed source documents cited in the subject report are used and referenced in the DEIS.

00164-004: Comments received during scoping are aggregated into a record of public scoping and are used to frame the issues and the analyses in the DEIS. All scoping comments were considered in preparing the DEIS. Scoping comments are not listed and identified individually or responded to in the DEIS. Comments received on the quality of the analysis in the DEIS are addressed specifically in the FEIS and may result in text changes in the FEIS as well.

The text of the EIS discusses TAPS operations and maintenance procedures.

00164-005: The southern segment of the pipeline including the Copper River Basin and the Chugach Mountains is sensitive to the thawing of permafrost. VSM stability is obviously critical to TAPS integrity. As such, it is the focus of extensive monitoring and surveillance. Please see Section 4.3.2 of the FEIS (Soils and Permafrost) for additional information.

VSM stability is obviously critical to TAPS integrity, as such, it is the focus of extensive monitoring and surveillance. JPO oversight ensures that VSM stability and integrity are maintained.

The "cesium liquefaction" in the comment probably should read "seismic liquefaction." "Cesium" and "liquefaction" are not related.

00164-006: Thank you for your comment.

00164-007: What you point out is the authority of the BLM and the JPO member agencies to ensure that the operation and maintenance is properly performed.

Problems were first noted shortly after construction in the Squirrel Creek area (Mile Post 717). The area has been monitored for movement since. Features found in this area include tilting supports, rotating bents, out-of-level crossbeams, uneven shoe/beam contacts, and significantly hanging shoes. Eighteen longer supports were installed in the summer of 2000. This area, as well as other locations having slope stability concerns, has been addressed in several JPO reports. See Section 4.1.3.2.1 for a discussion of design monitoring and repair of pipeline structural supports.

00164-008: The complex interrelationships associated with the proposed renewal of the TAPS right-of-way coupled with the diversity of reader interests and needs require the assembly of large amounts of information in the EIS. The interrelationships would allow different sections to be placed in any number of orders. Cross-referencing is used to avoid duplication while enabling readers with diverse needs to access sections of interest to them.

00164-009: In earthquake-prone areas, earthquakes can magnify the potential problems of slope stability (such as landslide, rock fall, and liquefaction). They are part of the focal points of the evaluation in the EIS and are discussed in Sections 3.3.2.1, 3.4.2, 4.3.3, and 4.5.2.3.

Responses for Document 00165

00165-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00165-002: The purpose of requesting public comments on a draft environmental impact statement is to obtain additional information that would improve the quality of the analysis in the document. In addition to holding public hearings in Alaska for the purpose of receiving comments on the DEIS, five other ways were provided to submit comments within a 45-day comment period. Comments on the DEIS were received from many locations outside of Alaska.

00165-003: The reader is directed to the discussion of escrow funds found in Section 2.5.

00165-004: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00165-005: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00165-006: The BLM and member agencies of the JPO use an adaptive management approach to evaluate the effectiveness of stipulations and regulatory oversight. Ongoing monitoring programs, as identified in the 12 Comprehensive Monitoring Reports published since 1996, provide BLM and JPO with the necessary information to evaluate the effectiveness of stipulations in the Grant and Lease.

The reader is referred to Section 4.1.1 (JPO oversight) and specifically to Sections 4.1.1.2 (Adaptive Nature of the Grant in Compliance Monitoring), 4.1.1.3 (Risk-based Compliance Monitoring), 4.1.1.4 (JPO Comprehensive Monitoring Program), and 4.1.1.8 (Coordinated Planning and Response to Abnormal Incidents) for more information on the role of adaptive management as a JPO business practice.

Responses for Document 00166

00166-001: The text in the EIS (now Section 3.25.1.1.7) has been revised to include a more thorough discussion of the role of subsistence in the Chugach Alutiiq sociocultural system.

00166-002: Section 3.25.1.1.7 in the FEIS has been expanded to provide a more complete view of Chugach culture as it is practiced today. In addition to the traditional ecological knowledge contained in the EIS, the 21 directly affected Tribes were contacted in April 2002 by certified mail to explore additional means of acquiring and incorporating such information. To date, no response has been received from any of those Tribes.

00166-003: The EIS discusses economic systems in rural Alaska as "mixed," meaning that there is a joint and interrelated reliance on wage income and subsistence. This is consistent with the position expressed by anthropologists who specialize in these geographic and topical areas. That stated, text throughout Sections 3.24 and 3.25 has been revised to discuss more thoroughly the nature of such mixed systems and the degree to which rural Alaskans (including Alaska Natives) can earn wages and still participate in their sociocultural systems.

00166-004: The Native Village of Eyak did not respond to a request for information made by certified mail in April 2002 during research for the draft EIS. Information from the Native Village of Eyak has now been provided through public comments on the draft, and has been included in the revised version of Section 3.25.1.1.2.

00166-005: The discussion of the Eyak sociocultural system has been moved to Section 3.25.1.1.8. The EIS intended to convey the idea that traditional Eyak culture is usually regarded as part of the Pacific Northwest Coast culture area, because of its similarities to other Pacific Northwest Coast cultures. It does not state that there were no trading relationships with interior peoples.

00166-006: It is not the intent of the EIS to denigrate the Eyak people. The statement that the traditional Eyak culture was modified under Tlingit influence in no way implies that the Eyak did not have their own culture. They would have had to have their own culture in order to modify it. The commentor correctly states that trait borrowing is common to all cultures. It in no way lessens the value of those cultures. Section 3.25.1.1.8 includes a discussion of Eyak relations with their other neighbors, as well.

00166-007: Section 3.25.1.1.8 notes geographic barriers beyond the Copper River Basin which lessened interaction with interior Alaska. This would not have precluded the Ahtna, who lived in the basin. Moreover, it would not have precluded interaction with other interior peoples, but would have made it more difficult.

00166-008: Section 3.25.1.1.8 has been modified to discuss alternate views of cultural heritage and membership in the Native Village of Eyak in greater detail.

00166-009: Using population figures gathered by a single source, the U.S. Bureau of the Census allows for credible comparisons to be made between regions based on data collected by well documented, systematic methods. The figures for the Native Village of Eyak, proposed by the Native Village Council, have been added to Section 3.25.1.1.8 for comparison.

00166-010: The draft EIS does mention the Village of Eyak in Section 3.25.1.1.2. This discussion has been expanded in Section 3.25.1.1.8 of the FEIS. A new discussion of Tribal governments has been added to Section 3.25.1.2.

00166-011: The referenced section mentions a single corporation and suggests neither positive nor negative effects associated with it. The text in Section 3.25.1.2 has been modified to discuss selected negative impacts of Native corporations.

00166-012: The political awareness and influence discussed here is awareness and influence in the American political system, which does seem to have emerged in many Interior Alaska sociocultural systems with increasingly sedentary settlement. A discussion of the effects of this shift in settlement pattern on sociocultural systems is provided in a text box in Section 3.25.1.1.

00166-013: References to Koyukon political practices were intended to be strictly illustrative and not to imply that the practice of electing chiefs is restricted to the Koyukon. The discussions of other Alaska Native sociocultural systems in Section 3.25.1.1 has been reworded to give greater balance.

00166-014: The examples given for the Koyukon were intended to be strictly illustrative, and not intended to convey the idea that they were restricted to the Koyukon. Section 3.25.1.1 has been reworded to give the discussions of the various Alaska Native sociocultural systems greater comparability.

00166-015: Section 3.25.1.1 has been reworded and expanded to make discussions of Alaska Native sociocultural systems more comparable.

00166-016: Section 3.25.1.2 has been revised to describe the development of ANCSA in greater detail; the referenced passage was removed in the revision process.

00166-017: Thank you for your clarification. The statement in Section 3.25.1.2 accurately reflects the cited reference (Burch,1984), which refers to extinguishment of all claims of aboriginal right. However, the rights extinguished were those involved with claiming entitlement to the land. The text in Section 3.25.1.2 of the FEIS has been changed.

Responses for Document 00167

00167-001: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00167-002: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent’s office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00167-003: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00167-004: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

Responses for Document 00168

00168-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue dialogue with the Bureau of Land Management.

00168-002: As stated in Section 1.2, "Scope and Decision of Analysis," the TAPAA and the Federal Grant provide the Secretary of the Interior, and therefore the BLM, with the authority and obligation to oversee the construction, maintenance, operation, and termination of the entire pipeline system, regardless of land ownership. Access, land use, and trespass issues related to Native lands, including those owned by the Ahtna Corporation, are addressed in Section 4.3.23.1, "Land Use."

00168-003: As a matter of agency programmatic responsibilities, the BLM is the lead agency for preparation of this EIS. The BLM made the policy decision to contract with a highly respected national scientific agency. The source documentation reviewed in preparation of the EIS includes decades of scholarship conducted in Alaska, often involving intensive interviewing with Alaska Native and rural Alaska residents. Throughout the preparation of the EIS, the BLM consulted with affected Tribal and Native organizations. A public scoping period at the beginning of work produced useful comments from throughout Alaska and many other states. Extensive review comments on the Draft EIS have resulted in many changes in the Final EIS, including changes in the sections on subsistence and sociocultural systems, to more carefully describe the multiple dimensions of the subsistence way of life.

00168-004: Section 2.5, Alternatives and Issues Considered but Eliminated from Detailed Analysis, states that oil spill response planning is a separate process and not part of the decision on the application to renew the federal grant. However, the subject of oil spills, including oil spill response, receives extensive coverage in the EIS, e.g. Section 4.1.4, Spill Prevention and Response and Section 4.4, Spills Analysis for the Proposed Action. See also the discussion on spill contingency planning in the Copper River Drainage in Section 4.4.4.3.2 and a synopsis of the response to the bullet hole incident in October 2001 near Livengood in Section 4.1.1.8.

00168-005: The executive summary has been revised, as has the section of the EIS that deals with spills (Section 4.4). A large spill of a certain type—notably into a river or stream under certain conditions—could have severe impacts on subsistence in the Copper River Basin (and elsewhere, depending on the location of the spill), as discussed in Section 4.7.8.1. Moreover, such impacts would have important implications for the rural sociocultural systems, Native and non-Native, as examined in Section 4.7.8.2. Both of these sections, as well as the executive summary, have been revised to emphasize impacts of a spill, in addition to economic and other impacts that may accompany such an event.

00168-006: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

The Trans-Alaska Pipeline System Pipeline Oil Discharge Prevention and Contingency Plan, CP-35-1 GP, prepared in 2001 by the Alyeska Pipeline Service Company (C-plan) provides full disclosure of spill planning, reporting, and response. The C-Plan is approved by the member agencies of JPO.

00168-007: Text has been added to the EIS in Sections 4.3.19.1.2 and 4.6.2.19.1 providing additional information on the assumptions used for the analysis of state and local government finances.

00168-008: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

APSC's oil spill response capabilities and plans for TAPS are summarized in Section 4.1.4 of the EIS and explained in detail in the "TAPS Oil Discharge Prevention and Contingency Plan" and in the "Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan." The Plans provide for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline or at VMT. They are available to the public through various libraries in several major cities in Alaska. Oil spill prevention and response capabilities and related activities specific to the Copper River Drainage area are discussed more fully in the text box in Section 4.4.4.3, "Oil Spill Planning for the Copper River Drainage."

00168-009: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

The TAPS Oil Discharge Prevention and Contingency Plan for the pipeline (C-plan), prepared by APSC (2001g - see Section 3.30 for reference), provides for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline. Some of the oil spill response crews reside in local villages along the pipeline.

The C-Plan is updated periodically and lessons learned from actual occurrences as well as from regular exercises conducted along the pipeline are incorporated into the C-Plan. In addition, the C-Plan is reviewed annually by BLM, every three years by ADEC, and every 5 years by DOT.

00168-010: Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments," requires that the federal government consult with Tribal governments during the preparation of an EIS. Government-to-government consultation for this EIS is described in Section 5.3, "Government-to-Government Consultation." As the lead federal agency associated with this EIS, the BLM established government-to-government exchanges with all Tribal governments in Alaska and more focused exchanges with 21 Tribes directly affected by the TAPS. These 21 communities received more detailed mailings, explaining the proposed ROW renewal, the EIS process, and various sources of additional information. Meetings were held with all Tribal organizations and Native groups that requested them, to discuss the EIS process and related issues in greater detail. At the meetings, specific emphasis was placed on how Tribal organizations and Native groups can participate effectively in the EIS and ROW renewal processes.

00168-011: Section 29 issues have been a major component of the ongoing government-to-government process under TAPS renewal. BLM welcomes continued dialog with all affected Native Tribes related to Section 29 issues.

A copy of the 2001 Alaska Native Utilization Agreement (ANUA) and its implementing plan have been added to the FEIS as Appendix F. These documents detail the Section 29 requirements, as agreed to by the company and BLM/DOI.

00168-012: With regard to Native hiring goals, APSC is now approaching the 20 percent target currently defined under the current Alaska Native Use Agreement. Data on total hires appears in Section 4.3.21. Section 30 concerns compensation for lost subsistence resources due to the TAPS. Although there currently is at least one claim filed under Section 30, no decision has been rendered. There is no evidence that APSC is out of compliance with Section 30.

In general, this EIS is intended to evaluate potential environmental impacts of renewing the TAPS ROW for 30 years and alternatives to that action. As the document is not a regulatory or monitoring tool, it does not evaluate compliance issues and assumes that APSC will comply with all components of the grant and lease. Both Sections 29 and 30 are discussed in Section 4.1.5, and appear in their full form in Appendix B of the FEIS.

00168-013: It is not clear from the comment what the phrase " The figure given for 3.72-6, the number of gallons" is referring to." If it is referring to the spill volumes given in Section 3.7.2.6 of the DEIS in units of gallons, the said volumes can be converted to barrels by dividing them by 42.

00168-014: The Bureau of Land Management is the lead federal agency for preparation of this EIS and has consulted with affected Tribal and Native organizations throughout the TAPS ROW renewal and EIS process. See Section 5.3 in the FEIS. Regardless of the assistance provided in preparation and review of the EIS, the BLM is responsible for its content.

00168-015: Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments," requires that the federal government consult with Tribal governments during the preparation of an EIS. As the lead federal agency associated with this EIS, the BLM established government-to-government exchanges with all Tribal governments in Alaska and more focused exchanges with 21 Tribes directly affected by the TAPS. These 21 communities received more detailed mailings, explaining the proposed ROW renewal, the EIS process, and various sources of additional information. Meetings were held with all Tribal organizations and Native groups that requested them, to discuss the EIS process and related issues in greater detail. At the meetings, specific emphasis was placed on how Tribal organizations and Native groups can participate effectively in the EIS and ROW renewal processes. Section 5.3 was rewritten to clarify the extensive government-to-government consultation process BLM used. While comments on the DEIS had to be received by the end of a 45-day comment period to be addressed in the Final EIS, additional provisions for involvement in the decision-making process applied to Tribal governments and Native groups. The process of government-to-government consultation allowed these organizations to continue dialogues with the Bureau of Land Management and for their comments to be considered in the Record of Decision.

Responses for Document 00169

00169-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00169-002: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00169-003: Planning among JPO agencies to ensure a coordinated government response and oversight of spill response actions is discussed in Section 4.1.1. APSC's oil spill response capabilities and plans for TAPS are summarized in Section 4.1.4 of the EIS and explained in detail in the "TAPS Oil Discharge Prevention and Contingency Plan" (APSC 2001g) for the pipeline and in the "Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan" (APSC 2001h) for the VMT. The plans provide for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline or at the VMT. Analyses of credible spill scenarios is provided in Section 4.4. They are available to the public through various libraries in several major cities in Alaska. Oil spill prevention and response capabilities and related activities specific to the Copper River Drainage area are discussed in the text box associated with Section 4.4.4.3.

00169-004: The BLM and the agencies within JPO acknowledge both that there have been legitimate issues related to APSC's Employee Concerns Program (ECP) and that APSC has undertaken considerable efforts to improve and refine its ECP program.

The BLM and JPO expect to continue to evaluate the effectiveness of APSC's ECP through confidential surveys that will seek input from all TAPS employees (see Section 4.8.4 of the FEIS). Like the three prior surveys, these efforts can provide broad measures of the confidence that TAPS workers have in APSC's ECP and can suggest areas needing improvement.

The JPO also notes that a confidential hotline (1-800-764-5070) currently exists for employees or members of the public to report issues and concerns about TAPS. Recorded messages are checked daily by the BLM-Alaska Special Agent's office. The purpose of the hotline is to identify issues relating to pipeline integrity, public safety, environmental protections and regulatory compliance for incorporation into the JPO work program. The BLM also refers employees seeking personal relief (e.g., restoration of employment or lost compensation) to the U.S. Department of Labor or other appropriate authorities for further investigation.

00169-005: The reader is directed to the discussion of escrow funds found in Section 2.5.

00169-006: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

Responses for Document 00170

00170-001: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00170-002: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00170-003: The reader is referred to Section 2.5 of the FEIS, “Alternatives and Issues Considered but Eliminated from Detailed Analysis.”

00170-004: Comments received during scoping are aggregated into a record of public scoping and are used to frame the issues and the analyses in the DEIS. All scoping comments were considered in preparing the DEIS. Scoping comments are not listed and identified individually or responded to in the DEIS. Comments received on the quality of the analysis in the DEIS are addressed specifically in the FEIS and may result in text changes in the FEIS as well.

Responses for Document 00171

00171-001: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

00171-002: APSC's oil spill response capabilities and plans for TAPS are summarized in Section 4.1.4 of the EIS and explained in detail in the "TAPS Oil Discharge Prevention and Contingency Plan" (APSC 2001g) for the pipeline and in the "Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan" (APSC 2001h) for the VMT. The estimated response times for various spill locations considered in the EIS are provided in Table 4.4-13 on page 4.4-44 of the EIS.

The C-Plans provide for significant resources, including equipment, trained personnel, and effective organization, to respond if oil does spill from the pipeline or at the VMT. The plans are available to the public through various libraries in several major cities in Alaska. Oil spill prevention and response capabilities and related activities specific to the Copper River Drainage area are discussed more fully in the text box in Section 4.4.4.3.

00171-003: At Squirrel Creek (Mile Post 717) Vertical Support Member (VSM) movement has been monitored for movement since problems were first noted shortly after construction. Features found in this area include tilting VSMs, rotating bents, out-of-level crossbeams, uneven shoe/beam contacts, and significantly hanging shoes. Eighteen longer VSMs were installed in the summer of 2000. This area, as well as other locations having slope stability concerns has been addressed in several JPO reports.

The VSMs have performed well over the past 25 years. Of the approximately 78,000 VSMs, no movement has been detected in about 55,000, and only an insignificant movement (less than about one inch) has been detected in most of the other VSMs; about 250 VSMs have tilted greater than 3% from vertical with the maximum tilt being 18%. Twenty-four VSMs have been replaced to date, 18 at Squirrel Creek (Milepost [MP]-717) in 2000, and 6 south of PS 12 (MP-735) this past summer. About 200 VSMs are currently on the watch list for repair or replacement because of movement.

See Section 4.1.3.2.1 for a discussion on the design, monitoring, and repair of pipeline structural supports, including the VSMs and monitoring of the heat pipes.

00171-004: The reader is referred to Section 2.5 of the FEIS, in which audits are addressed under Alternatives and Issues Considered but Eliminated from Detailed Analysis.

00171-005: Changes to the surveillance of TAPS were made subsequent to the pipeline shift at Atigun Pass. After the events of September 11, 2001, surveillance has again been modified. Security for the TAPS is an issue of national importance. There are elaborate security measures and plans in place, involving numerous Federal and State agencies. BLM has reviewed these confidential plans and agrees with them. Opportunities to strengthen these measures will always be pursued diligently by the agencies involved.

00171-006: See the text box on the MP 400 bullet hole incident in Section 4.1.1.8.

00171-007: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

The Trans-Alaska Pipeline System Pipeline Oil Discharge Prevention and Contingency Plan, CP-35-1 GP, prepared in 2001 by the Alyeska Pipeline Service Company (C-plan) provides full disclosure of spill planning, reporting, and response. The C-Plan is approved by the member agencies of JPO.

00171-008: The oil spill planning and prevention effort in the JPO is a large-scale, multi-agency endeavor. Each participating agency (Alaska Department of Environmental Conservation, Environmental Protection Agency, BLM, and the Alaska Department of Natural Resources) has a particular focus, but these are all considered collectively in the JPO TAPS oil spill response and planning group. This inter-agency group generally meets monthly with APSC and maintains a continuous monitoring program on TAPS oil spill planning and related issues. The group also coordinates with the Office of Pipeline Safety, which reviews the Pipeline Oil Spill Contingency Plan.

The emphasis of all agencies is on the prevention of spills. This is accomplished through a combination of: 1) oversight of spill contingency planning (including 64 exercises on TAPS annually) and, 2) through JPO's comprehensive TAPS operations oversight, monitor issues which could contribute to a spill in the future. In the event of a spill, however, JPO has a number of highly-trained individuals who are fully prepared to respond quickly and effectively.

The Trans-Alaska Pipeline System Pipeline Oil Discharge Prevention and Contingency Plan, CP-35-1 GP, prepared in 2001 by the Alyeska Pipeline Service Company (C-plan) provides full disclosure of spill planning, reporting, and response. The C-Plan is approved by the member agencies of JPO.

Oil spill prevention and response capabilities and related activities specific to the Copper River Drainage area are discussed in the text box in Section 4.4.4.3,"Oil Spill Planning for the Copper River Drainage."

00171-009: The reader is referred to Section 2.5 of the FEIS, "Alternatives and Issues Considered but Eliminated from Detailed Analysis."

00171-010: Comments received during scoping are aggregated into a record of public scoping and are used to frame the issues and the analyses in the DEIS. All scoping comments were considered in preparing the DEIS. Scoping comments are not listed and identified individually or responded to in the DEIS. Comments received on the quality of the analysis in the DEIS are addressed specifically in the FEIS and may result in text changes in the FEIS as well.

As part of the application for renewal process, the applicant provides the BLM with a description of how TAPS would be operated. The description of the operation then becomes a component of the impact analysis conducted by BLM.

Responses for Document 00172

00172-001: Thank you for your comment.

00172-002: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue dialogue with the Bureau of Land Management.

00172-003: The Bureau of Land Management is the lead federal agency for preparation of this EIS and has consulted with affected Tribal and Native organizations throughout the TAPS ROW renewal and EIS process. Government-to-government consultation procedures in accordance with Executive Order 13175 have been followed. In response to this comment and others, Section 5.3 has been significantly re-written to clarify the extensive government-to-government process followed by the BLM. Public involvement through scoping prior to preparation of the DEIS and through the process of receiving comments on the DEIS have been accomplished in accordance with Council on Environmental Quality regulations for implementing the National Environmental Policy Act.

00172-004: Although 45 days is understandably a short time to review a document of this size, the time period is consistent with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act regarding the review of draft environmental impact statements. Significant effort was made to advise people of the schedule and duration of the review well in advance (one year). The DEIS was published on schedule and many substantive comments on the content of the DEIS, including yours, were received during the 45-day period.

While comments on the DEIS had to be received by the end of the 45-day comment period in order to be addressed in the Final EIS, additional provisions for involvement in the decision-making process apply to Tribal governments and Native organizations. The process of government-to-government consultation allows these groups to continue dialogue with the Bureau of Land Management.