CC C Henry





Department of Energy Washington, DC 20545

March 15, 1990

The attached document, "Actions in Response to Exxon Valdez Oil Spill", is being sent to you for your information. It is updated every 2-3 months and is distributed to over 200 individuals throughout the public and private sector, who have an interest in the Valdez cleanup specifically, and/or oil spill prevention and response in general. Comments regarding changes, deletions and additions are appreciated.

Jan Lane

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For Further Information or Update Contact: Jan Lane U.S. Department of Energy, FE-4/GTN Washington, DC 20545 (301) 353-2604

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1 - National Response Team (NRT) -

Chaired by EPA
Vice-chaired by USCG
Participation by 14 agencies

George Turner/CG 202-267-4280

- 30-day Incident Report
 - Initial 30-day report (March 24 April 26) requested by the President to address preparedness for, response to, and early lessons learned from the Exxon Valdez oil spill. Preliminary effects of the spill are discussed. Preliminary recommendations for follow-up are identified. The final report was sent to President Bush on May 18, 1989.
- Contingency Plan Review
 - The President has requested that a nationwide review of port and harbor-contingency plans be conducted. The NRT will conduct this review with the Coast Guard serving as the lead agency. There are 48 plans which will be examined to determine their adequacy in light of the lessons learned from the spill and the critical importance of an adequate and timely response. Results are anticipated by early 1990.

2 - Natural Resource Trustee Council

Cecil Hoffman DOI 202-343-3811

- Purpose
 - Coordination of activities in the assessment of damages for injuries to natural resources resulting from the Alaska oil spill. The oil spill's biological impact on fish, birds, aquatic plants, water quality, marine mammals and other wildlife will be assessed. Ultimately, the study will help identify steps necessary to restore wildlife habitats and to encourage the recovery of natural resources in the affected areas.
- Participants:
 - -Federal Trustees
 - -- Department on the Interior
 - -- Department of Agriculture/Forest Service
 - -- Department of Commerce/NOAA
 - State of Alaska
 - Exxon

Martin Suuberg Assoc. Solicitor for Conservation & Wildlife 202-343-4344

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NOPPB will be tracking the Damage Assessment Program with the intent of identifying opportunities for continuing high priority studies (based on scientific criteria) which would be terminated after satisfying requirements for damage assessment information.

4 - Department of the Interior (DOI)

Hank Bartholomew 202-343-1398

- National Response Team Support
- National Resource Damage Assessment Trustee Council
- National Ocean Pollution Policy Board (NOPPB) Participation
- Increased Frequency of Safety Inspections
 - Effective April 17, 1989, MMS increased the frequency of their surprise safety inspections in the Gulf of Mexico, off the California coast, and Alaska.
- Cleanup Policy/Regulation Review
 - In-depth review by MMS of its oil spill contingency plan review, acceptance, and inspection procedures. A review of the effectiveness of the overall Federal response role in connection with potential OCS oil spills is also underway.
- Tanker Safety Analysis
 - Lujan requested a staff analysis of options for improving tanker safety, including the possibility of a radar communications system much like airport traffic control systems.
- Joint DOI/API Oil Spill Technology Research (also see page 18, API)

Ed Tennyson 703-787-1559

- DOI and API will jointly fund a \$6 million research and development program aimed at improving the technology and procedures for the containment and cleanup of oil spills. The costs of this program will be borne equally by API and the government over three years at a rate of \$2 million a year.

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- The following proposals are being considered:
 - -- Quantify pollution trade-offs as a result of in-situ spill burning
 - -- Development of an airborne oil thickness sensor
 - -- Optimization of an innovative highspeed water jet containment boom
 - -- Development of nondamaging beachline clean-up techniques
 - -- Evaluation of an open ocean Finnish skimmer
 - -- Chemical treating agent improvements;
 - A. Nondispersants
 - B. Guidelines
 - C. Dispersants
 - -- Development of a laser fluorosensor for oil detection
 - -- Development of a standard test procedure for offshore containment booms
- These activities will be coordinated with the Department of Transportation, the Environmental Protection Agency and the National Oceanic and Atmospheric Administration, with some work to be accomplished in cooperation with other countries. The \$6 million program is only for research. The research will unquestionably uncover improvements in equipment and techniques for which additional spending will be required.
- Increase in Oil Spill Technology R&D

Ed Tennyson 703-787-1559

- MMS plans to increase its annual budget for oil spill technology R&D by \$1 million for fiscal years 1989-1991.
- Offshore Oil Spill Response Technology Seminar -- December 13, 1989

Ed Tennyson 703-787-1559

- Due to the increased interest and related inquiries into oil spill containment and clean-up technology since the Valdez oil spill, MMS conducted a seminar in Herndon, Virginia to discuss the current status of technology.
- Protocol for Post-Spill Studies

Don Aurand 703-787-1726

- The MMS Regional Environmental Studies Chiefs will also be developing a protocol that describes how the MMS Environmental Studies program might participate in post-spill studies.

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• Incident Report

Jan Thorman 202-343-9314

- OCS Policy Committee formed a sub-committee to review analyses of the Valdez oil spill and identify policy implications for the OCS oil and gas program. Report findings will be presented at the OCS Policy Committee meeting in the spring of 1990, in Alaska.

Re-Opening of OHMSETT Facility

Ed Tennyson 703-787-1559

- Working in conjunction with EPA and USCG, the MMS has been pursuing the re-opening of the Oil & Hazardous Materials Simulated Environmental Test Tank (OHMSETT), and oil spill testing facility in Leonardo, New Jersey, which closed in 1986 due to lack of funding. Negotiations are currently underway with the Navy, who took ownership of the facility in March 1989.
- Other actions in support of research:

Jim Cimato 703-787-1721

- \$56,000 and staff support has been provided to FWS to support aerial surveys of marine mammals and seabirds (focusing on sea otters). Radio tags have also been purchased for possible use on cleaned and released otters.
- \$10,000 has been provided to the National Marine Fisheries Service (NMFS) Auke bay (Alaska) laboratory to support that lab's sampling efforts in intertidal and subtidal areas of Prince William Sound (for subsequent chemical analyses).
- \$65,000 has been provided to various contractors to continue studies of the effects of the oil spill on the early life stages (eggs, larvae) of herring in Prince William Sound.
- \$50,000 has been provided to the National Oceanic and Atmospheric Administration (NOAA) to mobilize and transport the NOAA vessel #1273 from Prudhoe Bay down to Prince William Sound for use in field sampling efforts.
- \$50,000 has been provided to the United States Geological Survey (USGS) to redeploy their ship in Prince William Sound for the collection of sediment samples for chemical analyses.
- \$25,000 has been provided to contractors to deploy surface drifters along the trajectory of the Exxon Valdez to allow real-world verification of the drifter performance.

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Offshore Oil Transport Stations

Hank Bartholomew 202-343-1398

- Secretary Lujan has proposed that offshore "supports" be considered, at which tankers could unload without having to travel close to shore. The oil would then be transported to shore by pipeline.
- Marine Bird Surveys
 - The Fish and Wildlife Service (FWS) has been surveying beaches from vessels in the spill zone since March 27. The purpose of the initial surveys was to estimate mortality of seabirds and recover those fit for rehabilitation.
 - The FWS initiated aerial surveys for marine birds and mammals the day after the spill.
- Eagle Capture Program
 - Exxon has funded a program in conjunction with FWS to establish an eagle capture program designed to locate and retrieve bald eagles and other raptors impacted by the oil spill.

5 - Environmental Protection Agency (EPA)

Jim Makris 202-475-8600

- National Response Team
- National Resources Damage Assessment Trustee Council Consultant
- National Ocean Pollution Policy Board (NOPPB) Participation
- Oil Spill R&D Database

Tony Jover 202-382-2387

- EPA is developing an automated database of all oil spill R&D activities throughout the public and private sector in the U.S. and internationally. Coordination with other oil spill related automated systems is planned. The data collection form will be circulated for review in late February 1990. Data collection will begin later in the spring.
- Bioremediation Project

Hap Pritchard 904-932-5311

EPA and Exxon tested a process last summer that uses phosphate and nitrogen to cultivate microorganisms on the beach. The process used in

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Alaska relies on the ability of naturally occurring microorganisms to degrade or break apart toxic hydrocarbons (such as those found in crude oil) in marine or other aquatic environments. Because it does not involve physical disruption of the site, bioremediation is an especially desirable technology for oil spill remediation.

• Workshop, December 14-15, 1989 -- Scientific Critique of Bioremediation Research in Alaska

Kurt Jakobson 202-382-5747

- EPA sponsored a workshop in Washington, D.C. which examined beach cleaning activities employed in Alaska. The purpose of the workshop was for EPA to 1) evaluate existing data and assess the extent to which nutrient addition enhanced oil biodegration and affected ecological processes, 2) identify information gaps, 3) identify overall conclusions and recommendations from the project, and 4) identify future bioremediation activities.
- EPA concluded, based on visual inspection of treated beaches, that oil was removed from the shoreline. Samples of oil taken from the surface of treated beaches showed changes in composition indicating biodegration, and laboratory studies confirm that the use of bioremediation products enhanced the extent and rate of oil degradation relative to untreated shoreline materials.
- EPA and Exxon continue to study the results of the bioremediation process in order to assess its effectiveness, potential environmental effects, and future use.
- Workshop, September 17-18, 1990 -- Discussion of Various Aspects of Valdez Spill With Emphasis on Biological Clean-up Efforts

EPA, Biotechnology Forum, Inc., and others are sponsoring a workshop in Cincinnati, Ohio to enable participants to understand the extent of the spill in the context of environmental problems, to understand the complex chemistry of Prudhoe Bay oil and its implication for clean-up efforts, and to present clean-up options and evaluate them. Other presentations are designed to enable participants to understand the rationale behind biological clean-up efforts, to present the results of biological clean-up efforts by EPA and others and to examine the future

Dr. Vlasta Molak Biotechnology Forum, Inc. 513-533-8334

• NETAC Review of Unsolicited Proposals

of biological clean-up of oil spills.

- Following the Valdez oil spill there were a number of unsolicited

Larry McGeehan 412-826-5511

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bioremediation proposals forwarded to EPA. EPA recently asked the National Environmental Technology Applications Corporation (NETAC) to develop an evaluation system for reviewing these proposals. NETAC is a nonprofit corporation created in 1988 through an agreement between the EPA and the University of Pittsburgh to facilitate the commercial application of innovative environmental technologies.

- On December 18-20, 1989, NETAC assembled an independent panel of expert scientists from industry, academia, and applied research organizations to recommend criteria for choosing such technologies. The purpose of the evaluation system is to facilitate the movement of innovative biological approaches for dealing with oil spills more quickly into the marketplace. NETAC is now ranking all of the proposals against the established criteria and will be forwarding its recommendations to EPA and the USCG in early 1990.
- National Coastal and Marine Policy
 - EPA is convening an interagency group to arrive at consensus on a National Coastal and Marine Policy to focus on controlling or eliminating sources of pollution in coastal waters. One provision of EPA's draft proposal is to promote the acceptance of the international oil spill conventions.

6 - Department of Transportation/U.S. Coast Guard (USCG)

Capt. Richard Larrabee 202-267-0518

- National Response Team Support
- National Resources Damage Assessment Trustee Council Consultant
- National Ocean Pollution Policy Board (NOPPB) Participation
- The USCG is investigating the Vessel Traffic System (VTS) and will address any circumstances that may have played a part in the spill.
- The Marine Board of Investigation is conducting a marine casualty investigation that will examine any evidence of wrongdoing on the part of the captain or crew of the Exxon Valdez. This investigation will determine if the Coast Guard will initiate suspension and revocation proceedings against the licenses or documents of personnel aboard the ship.

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- The National Transportation Safety Board is conducting a fact-finding investigation that can be expected to identify responsibility for the Exxon Valdez oil spill, as well as to make recommendations for avoiding such accidents in the future. An NTSB report typically requires 8 to 12 months for preparation.
- DOT submitted proposed oil spill legislation to 101st Congress. A description of DOT's proposal is included in Oil Spill Legislation summary attached.

Current Studies

- USCG currently has a number of navigation initiatives underway, including a port needs study. This study, expected to be completed in one year, will establish goals and priorities into the 21st century with a prioritized list of those U.S. ports and waterways that would benefit by having a Vessel Traffic System (VTS) or alternative management network established and a statement of the necessary capital investment. An operational and technical review of existing VTS's is underway to determine if near term changes are necessary. An in-depth technical and operational review of equipment will be conducted to identify needed upgrades or changes.
- A pilotage study was recently convened to consider the need for changes to statutes and other requirements. The study will consider various determinations for pilotage including qualifications of licensed personnel, nature of voyage, type of cargo being transported, and type of service -- domestic or foreign. Additionally, the extent of pilotage waters, effect of vessel type on pilotage needs, certification and training, pilot/master authorities, and roles of federal and state governments will also be examined.

Interagency Oil Spill R&D Workgroup

Dan Sheehan 202-267-2970

- The U.S. Coast Guard has primary responsibility for the federal response to waterborne spills of oil and hazardous chemicals. In order to address U.S. concerns about oil and hazardous chemical-related research and development, the USCG sponsored a conference on September 26-27, 1989 at their R&D center in Groton, Connecticut. Representatives from nine federal agencies, API and PIRO attended. The conference examined R&D initiatives throughout the federal government and industry, and discussed methods for coordinating those efforts.
- The USCG distributed proceedings from their September R&D conference in November 1989. A follow-up meeting was held on

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November 17.

- The interagency workgroup expects to publish a report in early 1990. in response to oil spill legislation, that summarizes findings of the workgroup, identifies state-of-the-art R&D, future R&D needs, and makes recommendations for federal coordination of R&D efforts.
- FY90 Oil Spill Appropriations Increase
 - The USCG received an increase of \$4 million in their FY1990 appropriation for oil spill prevention and response R&D. A spending proposal for the \$4 million was submitted to Congress in November 1989.

7 - International Maritime Organization (IMO)

- The Paris Economic Summit in June 1989 issued a communique that "expressed concern that national, regional, and global capabilities to contain and alleviate the consequences of maritime oil spills need to be improved. All countries were urged to make better use of the latest monitoring and clean-up technologies and to adhere to and implement the international convention for the prevention of oil pollution of the oceans." The communique also asked the IMO to put forward proposals for further preventive action. In follow-up to the communique, the USCG has initiated the following objective:
 - Convening of an international conference by late 1990 to develop and adapt an international convention on emergency preparedness and response to oil spills from ships. This objective would build upon existing bilateral and regional plans, with key benefits derived from joint R&D and knowledge of existing equipment inventories.

8 - Department of Energy (DOE)

Rich Dailey 202-586-7117

- National Response Team Support
- Gasoline Price Impact Analysis
- Oil Supply Analysis

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 Joint DOE/State of Alaska Study on the Alaska North Slope Oil Delivery System (ANSODS) Guido DeHoratiis 202-586-7296

- Joint study with the State of Alaska to provide information and to assess the long-term delivery capability of crude oil from arctic Alaska to destinations in the continental U.S. The following outlines the scope of the study:
 - 1. Potential Timetables for the Development of Arctic Alaska Oil
 - A. Current arctic Alaska production and revenues
 - B. Predictions of U.S. oil and gas demand and world prices
 - C. Analyze future scenarios of oil development and demand on the existing system
 - D. Arctic Alaska natural gas resource potential
 - 2. Technical Review of Past Performance, Current Status and Future of ANSODS
 - A. Original design and performance specifications
 - B. Actual performance record from 1977 to the present
 - C. Design history
 - D. Future performance requirements
 - E. Trade-offs between potential development and facility requirements
 - 3. New Technologies for Spill Prevention, Containment, Mitigation and Cleanup
 - A. Information on the state-of-the-art in spill technology in addition to new spill technology
 - B. Effectiveness of this technology
 - C. Identify techniques that may be adaptable to Alaskan conditions
 - 4. Consequences Resulting from a Shutdown of the ANSODS
 - A. Review of the engineering and operational considerations
 - B. Impact on producing fields due to shutdown
 - C. Assess the loss of revenues to the industry, the state, and the federal government
 - D. Impact of a reduced energy supply for the nation and the state
- A meeting to finalize the statement of work and begin procurement for the study will be held in March 1990.

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DOE Lab Capabilities

Jan Lane 301-353-2604

- DOE is currently exploring the possibility of using the research capabilities of its National Labs in cooperation with other federal and industry research efforts. Work being done by DOE in the following areas may be relevant to other oil spill clean-up R&D underway or proposed:
 - -- microbial science related to enhanced oil recovery
 - -- biological methods of cleaning up oil and spills on land
 - -- R&D on cleanup of hazardous materials in Defense programs
 - -- remote sensing
 - -- instrumentation for detection and analysis
 - -- robotics
 - -- dispersion technology
 - -- major modeling capabilities

9 - International Energy Agency

International R&D

Harold Jaffe 202-586-6770

- The Secretary of Energy, representing the United States at the May 1989 International Energy Agency (IEA) Ministerial meting, called for an "international effort focusing on the prevention and handling of oil spills". This position derives from two principles fundamental to our national energy policy: to reduce our vulnerability to disruption in energy supply arising from political, accidental, or other causes; and to ensure that the supply and distribution of energy is carried out in an environmentally sound manner. Steps taken to reduce the occurrence of oil spills, and sound preparedness to deal with oil spills will enhance public confidence in energy development activities, minimize pressure for policies which may adversely affect energy security, and reduce the chance of such spills disrupting the oil supply infrastructure.
- The IEA agreed to "examine the possibilities for international collaboration to improve technologies and procedures for preventing and treating oil spills and other accidents in the petroleum production, transport, and processing system." In response to the IEA commitment, the Committee on Research and Development (CRD) is surveying current efforts by international organizations, through the public and private sector to determine the extent of their involvement in this area.
- The IEA is considering an international conference, possibly in Canada, in the Spring of 1990, to review oil spill R&D activities throughout the

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U.S. and internationally, to assist IEA in formulating its objectives.

10 - Department of Commerce (DOC)/NOAA

George Kinter 202-443-8865

- National Response Team
- National Resources Damage Assessment Trustee Council
- National Ocean Pollution Policy Board (NOPPB) Chair
- Clean-up Technology Workshop, November 28-30, 1989
 - As part of NOAA's winter program for the Exxon Valdez clean-up, a workshop was held in Anchorage, Alaska to examine technological methods which may be useful in dealing with oil remaining on the shoreline next spring. Each of the three areas of treatment technology physical, chemical, and biological -- were examined.
- Mussel Watch
 - A variety of intertidal sites in Prince william Sound have been revisited.
 Mussels and sediment samples are being collected for later chemical analysis.
- Benthic Surveillance
 - Fish and crustacea are being collected in Prince William Sound for subsequent chemical analysis of petroleum hydrocarbon concentrations and aryl hydrocarbon hydroxylase activity levels. This is an expansion, or refocusing, of NOAA's National Benthic Surveillance Project.
- Spring Clean-up Activities

Dave Kennedy 206-526-6317

- NOAA compiled a draft paper on clean-up strategies which was distributed for review to other federal agencies. It was revised based on their comments and was submitted to the Coast Guard for their consideration in planning spring clean-up activities.
- A multi-agency group (Exxon, State of Alaska, NOAA, Coast Guard and others) will be walking the beaches to assess their condition and determine needed clean-up activities. This assessment will begin the end of March.

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11 - Office of Technology Assessment

Peter Johnson 202-228-6848

- Oil Spill Technology Assessment
 - OTA is conducting an oil spill technology assessment that will provide background and guidance to the Congress when considering how to build a better oil spill response capability through Government programs. private incentives, or regulations. Such initiatives could take the form of research and development; construction of improved systems; better response planning; or enhanced drills, tests, and training. The OTA study will evaluate current capabilities in the U.S. and internationally, and identify the major gaps in capabilities that hinder an adequate national response in the future.
 - A draft report was distributed on December 20, 1989. Final publication is expected in March 1990.

12 - State of Alaska

- Participation in National Resource Damage Assessment Trustee Council
- The Attorney General for the State of Alaska is investigating issues of negligence and liability resulting from violations of State laws.
- Joint study with DOE to look at the Alaskan oil production and delivery system (See 8-DOE)

Dr. Henry Cole 907-465-3568

• Coordination with Alyeska to develop and implement new tanker rules (See 15-API)

Lynn Woods AOSC 907-258-6545

• The State legislature has passed a series of bills which would:

Lynn Woods AOSC 907-258-6545

- Increase civil fines for oil spills from \$10 a gallon to as much as \$50 a gallon. A cap on fines was also raised from \$100 million to \$500 million.
- Prohibit oil companies from writing off spill cleanup costs on its severance tax payments. The bill would apply to Exxon's costs.

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- Require the Department of Environmental Conservation to prepare a statewide master plan for cleanup of oil spills and hazardous substance accidents. The law would require contingency plans for all coastal areas where the dangerous substances are moved on water.
- Create an oil and hazardous substance response office that would use volunteer corps in coastal communities for the initial response to the spills.
- Raise oil production taxes by a nickel a barrel to pay for all the oil spill legislation.
- Create an independent commission to investigate the Prince William Sound oil spill.
- Alaska Department of Environmental Conservation (ADEC) Report

Alex Viteri ADEC 907-276-1194

- About 100 miles of shoreline segments will require additional treatment to remove oil contamination in Prince William Sound resulting from the Exxon Valdez oil spill. These areas are mostly low-energy shorelines that were heavily or moderately oiled and are likely to remain contaminated and present continuing risks to wildlife and fisheries. These areas are also likely to become covered with asphalt as the oil continues to weather.
- Scientists were able to pinpoint these areas using the report prepared by ADEC and distributed in January to Exxon, the U.S. Coast Guard, and the National Oceanic and Atmospheric Administration. The report, entitled "Impact Maps and Summary Reports of Shoreline Surveys," includes maps that indicate the condition of Alaskan shorelines after Exxon clean-up crews had departed in late September.

Data Sharing Agreement

Alex Viteri ADEC 907-276-1194

- A data-sharing agreement between ADEC, Exxon and NOAA, which was signed by all parties on December 13, 1989, is intended to facilitate the information exchange among the agencies responsible for deciding what oil clean-up activities should take place next spring.

Alaska Oil Spill Commission

The Alaska Oil Spill Commission, created by the Alaska legislature to study the Valdez incident and recommend public policy remedies, recently completed its report. The report includes 60 recommendations

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on prevention policies, industry responsibilities, state and federal regulations and oversight, government response, and research and development.

• Winter Clean-up Efforts

- Governor Steve Cowper approved in January more than \$6 million in grants to communities affected by the Exxon Valdez oil spill in Prince William Sound last March. The funds will be used primarily for local oil removal, but will also finance administrative activities and preparation for shoreline treatment in the spring. The grants are part of a \$21 million state winter clean-up plan announced by Cowper in September and are in addition to about \$3 million already given to local communities.
- Meeting on Clean-up Methods -- February 26-March 2, 1990

- Alex Viteri ADEC 907-276-1194
- The Alaska Department of Environmental Conservation has been working over the winter to identify efficient, cost-effective, environmentally sound clean-up methods. They have reviewed over 150 unsolicited proposals. These have been narrowed to 40 proposals for further consideration. 20 of those 40 concern bioremediation methods and have been forwarded to EPA for their review. The other 20 proposals are mechanical or combined mechanical/chemical methods of clean-up. These 20 proposals were considered at a meeting February 26-March 2 attended by representatives from the State of Alaska, the Coast Guard, NOAA, and Exxon.
- Participants were shown videotapes of actual clean-up and where the oil is now. They determined the most promising clean-up proposals from the 20 still under consideration. If needed, these candidates will be field tested before being forwarded to the Coast Guard for consideration in their spring clean-up plans.

13 - National Academy of Sciences (NAS)

Assessment of Tank Vessel Design Alternatives

The U.S. Coast Guard has requested the National Academy of Science's National Research Council to assess whether alternative tank vessel designs such as "double bottoms" or "double hulls" have the potential to improve maritime safety and marine environmental protection. A committee has been convened under the Marine Board to review the

Dan Sheehan 202-267-2970

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safety, economic and environmental implications of alternative tank vessel designs and make recommendations.

Specific Tasks

- Identify and define tank vessel design and arrangement alternatives to be considered:
- Acquire data on and analyze tank vessel accidents;
- Assess technical concerns about alternative tank vessel designs;
- Identify needed research; and
- Elucidate the safety, environmental, economic costs and benefits of alternative tank vessel designs.

• Report Preparation and Dissemination

The committee will prepare a report that addresses how alternative tank vessel designs might affect the overall consequences of tank vessel accidents. The Coast Guard will use the technical information, analysis and recommendations of the Academy in its deliberations concerning whether to establish new or alternative tank vessel design requirements as one measure to improve maritime safety and marine environmental protection. The results of the study will also be of interest to the United States Congress, to the domestic and international marine transportation industry, to environmental protection organizations, and to states and communities along tank vessel routes.

Schedule

- -- A pre-publication copy of the formally reviewed and released National Research Council report will be available to the U.S. Coast Guard in October 1990. Printed copies of the final report will be publicly available in February 1991.
- NAS will be producing an annotated bibliography on oil spill related R&D.

14 - Department of Defense (DoD)

National Response Team Support

Brian Higgins 202-325-2211

• Alaska Regional Response Team Support

Mervin Mullins 907-753-2513

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• Department of the Army, Director of Military Support, Alaska Joint Task Force (DOMS JTF)

LTC Don Willhouse 202-695-3848

• U.S. Army Corps of Engineers (USACE), Emergency Management Branch

Bob Fletcher 202-272-0251

- DoD participated in development of the 3-Day Report to the President and is participating in the 6-Month Study and Report on Oil Spill Contingency Planning
- DOMS JTF coordinated DoD support for clean-up. DoD provided detailed Information Memoranda on a daily basis during the clean-up and is preparing an after action report.
- Alaska National Guard provided support under the direction of the Governor
- U.S. Air Force provided over \$3 million worth of heavy airlift of clean-up equipment from around the world.
- NAVSEA SUPSALV provided over \$30 million worth of equipment and personnel for clean-up.
- NAVSEA SUPSALV maintains oil and hazardous substance pollution response equipment and provides technical expertise and related support to predesignated Navy On-Scene Coordinators. Under the terms of the National Oil Spill and Hazardous Substances Pollution Contingency Plan, SUPSALV response assets are also available to Federal On-Scene Coordinators for non-Navy spill response.

15 - American Petroleum Institute (API)/Petroleum Industry

Joint DOI/API Oil Spill Technology Research

Bob Drew/API 202-682-8308

- DOI and API will jointly fund a \$6 million research and development program aimed at improving the technology and procedures for the containment and clean-up of oil spills. The costs of this program will be borne equally by API and the government over three years at a rate of \$2 million per year. The following proposals are being considered:
 - -- Quantify pollution trade-offs as a result of in-situ spill burning
 - -- Development of an airborne oil thickness sensor
 - -- Optimization of an innovative highspeed water jet containment boom
 - -- Development of nondamaging beachline clean-up techniques

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- -- Evaluation of an open ocean Finnish skimmer
- -- Chemical treating agent improvements (dispersants, nondispersants, guidelines)
- -- Development of a laser fluorosensor for oil detection
- -- Development of a standard test procedure for offshore containment booms
- These activities will be coordinated with the Department of Transportation, the Environmental Protection Agency and the National Oceanic and Atmospheric Administration, with some work to be accomplished in cooperation with other countries.
- API Task Force

John Costello PIRO 202-682-8580

- The Board of API created an Oil Spill Task Force on April 7, 1989, to study and evaluate industry prevention and response programs. The Task Force, under the leadership of Allen Murray, Chairman of the Board, Mobil Corporation, consisted of officials from eight petroleum companies (i.e., Amoco, Arco, BP America, Chevron, Exxon, Mobil, Shell, and Texaco).
- The Task Force recommended that the industry take action in three major areas: prevention of spills, response to spills, and spill-related research. The recommended program will cost the industry more than \$400 million over its first five years. The Task Force recommended that the cost of the recommended program be funded by industry through a charge based on crude and fuel oil carried by sea and received by industry members at U.S. facilities.
- Task Force's Recommended Program
 - 1 -- Prevention Areas of Focus:

-- Vessel Traffic Systems

-- Vessel Configuration

-- Pilotage

-- Vessel Size

-- Tug Assistance

- -- Drug and Alcohol
- -- Licensing, Certification and Training of Marine Personnel
- -- Crew Complement
- -- Shipboard Oil Spill Response
- -- Automatic Pilot
- Capability

2 -- Response to Spills (PIRO)

John Costello/PIRO 202-682-8580

E.J. Rollin API Tanker

Committee

312-856-4810

- The petroleum industry believes it can significantly enhance its response capability by providing greater availability of equipment and

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trained manpower through the establishment of a new organization to be known as the Petroleum Industry Response Organization (PIRO).

- The PIRO headquarters would be located in Washington, D.C. It would coordinate activities with the National Response Team, engage in research and training, and coordinate the five PIRO regional response centers. Each PIRO regional center would be manned around the clock with dedicated, trained personnel, and would have an 8 million gallon response capability.

3 -- Oil Spill Research and Development Opportunities

John
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- PIRO has agreed to provide \$35 million over the next five years followed by a continuing effort of \$1-4 million per year to fund research across a broad spectrum of issues. This research would be coordinated with that funded by the government and API to avoid duplication, gaps, and inefficiencies. PIRO is currently developing their R&D proposals.
- Based on contributions from industry and others, an overall program has been identified with six major objectives and prioritized to be executed over five years:

	Estimated \$k/Yr.		
<u>Objective</u>	Year 1 and 2	Years 3-5	
- Preventing Loss From/Away From Ship	150	150	
- On-Water Oil Recovery and Treatment	2,650	1,850	
- Preventing and Mitigating Shoreline Imp	act 3,450	1,675	
- Fate and Effects of Oil in the Environm	ent 2,100	1,100	
- Wildlife Preservation	700	150	
- Health and Safety	300	50	
Total for Year	9,350	4,975	
Overall for Period	18,700	14,925	
Grand Total	33,625		

PIRO Implementation

PIRO's steering committee has proposed an organizational structure and plan for implementation of an industry oil spill response organization. Comments and endorsements were requested by February 28, 1990. Organizational efforts will begin in earnest in March 1990.

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- A few of the specifics regarding PIRO's organization and response to spills will be determined based on the final language of the oil spill legislation developed by the House and Senate conferees.

• Oil Industry Safety Upgrade

- The oil industry has acted to upgrade the safety of oil shipments in Alaska and is involved in a major effort to do the same in marine shipping operations elsewhere in the country.

Alyeska - New Tanker Rules

- Alyeska Pipeline Service Company, a group of oil companies that operates the oil terminal at Valdez, have undertaken a series of steps to improve spill prevention and response including:
 - -- Ship owners and operators using the Valdez terminal will be required to institute random drug and alcohol testing on all their vessels.
 - -- Tug escorts will be provided and pilotage will be requested on all incoming and outgoing vessels to a point beyond Bligh Reef in Prince William Sound.
 - -- Alyeska will propose to the U.S. Coast Guard the addition of the radar responder capability to the existing Bligh Reef buoy and other appropriate locations within Prince William Sound.
- Alyeska has formed an around-the-clock oil spill response team at its Valdez Marine Terminal and has provided the terminal with equipment called for in its Oil Spill Contingency Plan.
- Additional skimming and booming capacity will be acquired by Alyeska to augment the existing spill contingency equipment, in advance of a detailed study of contingency requirements.
- Alyeska will assure the on-site availability of chemical dispersants and dispersant systems so they may be used in a timely manner in the event of a major spill.
- Alyeska has acquired three large emergency response vessels to complement its oil spill response capability. The vessels are being modified for duty in Prince William Sound. They will escort outbound tankers within Prince William Sound and will be equipped to tow a vessel in distress as well as to immediately deploy oil spill recovery equipment in the event of a spill.

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Alyeska - Oil Spill Assessment

- Alyeska is making a full assessment of its response to the spill to assure that all opportunities for improvement have been identified. A task force of Alyeska owner-companies will then make additional recommendations on such matters as improved cleanup equipment and spill management for Valdez and Prince William Sound. The task force's report will be completed within the near future, made public and promptly implemented.

Evaluation of Ecological Effects

- Beyond cleanup and mitigation efforts, ADEC, NOAA, Exxon and the petroleum industry are evaluating the short and long term ecological impacts of the spill. These organizations brought environmental experts to the scene to test the water column in affected areas, bottom sediments, and effects on marine life and shoreline habitats.

16 - Other Efforts

- National Fish and Wildlife Foundation
 - The national Fish and Wildlife Foundation announced that it is establishing a special fish and wildlife restoration fund to aid the rescue and recovery of fish, wildlife and plant resources impacted by the Valdez oil spill. The Foundation will manage the fund, and monies will be disbursed in concert with and on the recommendations of officials from the United States Fish and Wildlife Service, the National Marine Fisheries Service, and the Alaska Fish and Game Commission.

Center for Marine Conservation

Linda Bennett 202-429-5609

The Center for Marine Conservation, a nonprofit organization, has released a report entitled "The Exxon Valdez Oil Spill: A Management Analysis." The report examines the response of each state and federal agency to the spill, and make recommendations on oil spill contingency plans, Alyeska's initial response, federal and state agency actions, Exxon's activities, oil spill liability, and funding for planning and response. The report also describes in detail the effect of the oil spill on wildlife in the region, and evaluates the efforts to rescue, rehabilitate, and release oiled wildlife.

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Alaska Conservation Foundation

Jim Stratton 907-276-1917

The Alaska Conservation Foundation has established two funds to accept citizen and corporate contributions in response to the Exxon Valdez oil spill disaster. The Prince William Sound Cleanup and Rehabilitation Fund supports citizen and volunteer efforts in all areas affected by the spill. Possible programs supported by this fund include identifying potential volunteers and their skills and expertise, providing support for volunteers, such as transportation, food, equipment and supplies, and providing public oversight of state and federal agency policy decisions. The Fund for Oil and Alaska's Future is to be used to fund proposals submitted by Alaskan environmental groups for supporting initiatives relating to the oil industry in Alaska. Projects could include review of contingency plans and advocacy for stronger enforcement of existing regulations.

Legislation in the 101st Congress

Overview

Oil spill legislation has been a topic in the U.S. Congress for years, but with little action. The Exxon Valdez spill of 10 million gallons of crude oil into Prince William Sound mobilized Congress for action and led to introduction of over 25 different bills related to oil spill prevention, response, liability, and clean-up. Many of these bills had similar provisions.

The Senate distilled the many oil spill bills offered into a single bill which was passed in August. The House followed suit with a bill of their own in early November. The two bills are now awaiting conference action, expected in early March. There has been some speculation that the recent spill off California will push Congress to take action and that it may be politically expedient to finalize a bill prior to the first anniversary of the Valdez spill in late March.

Legislation restricting offshore development have also been proposed as concern has grown over the impact of oil spills on the environment. Certain areas of the Outer Continental Shelf (OCS) have been placed off-limits for development as part of the Department of Interior appropriations bills annually since 1982. The number of areas suggested for moratoria have grown, and new bills would restrict development even further.

Senate Action

In the Senate, a single bill, S.686, was created from the many different oil spill proposals. This bill, entitled The Oil Pollution Liability and Compensation Act of 1989, was passed by the Senate on August 4, 1989. The original Senate bill was introduced by Sen. Mitchell (D-ME) on April 4, 1989. The bill was amended to include provisions from bills introduced by Senators Adams (D-WA), Stevens (R-AK), Kerry (D-MA), and Lautenberg (D-NJ).

Since the Senate bill combines provisions from many bills it contains provisions relating to response, liability, funding, research, and prevention.

- Response: Regional response centers will be established using existing public or private personnel. A National Contingency Plan will be established including criteria, standards and procedures for response and clean-up.
- <u>Liability</u>: Responsible party shall be liable for clean-up costs and damages, limited only as follows: tankers, \$1000/gross ton; other vessels, \$300-600/gross ton; offshore oil rigs, unlimited; other onshore and offshore facilities and the Trans-Alaska Pipeline System (TAPS), \$350 million. Unlimited liability shall apply in all cases of willful misconduct or gross negligence. Acts of God, acts of war, and acts or omissions of a third party shall exempt the owner of the vessel from liability.
- <u>Funding</u>: Establishes the Oil Spill Compensation Fund. Absorbs the fund established by the Clean Water Act, the Trans-Alaska Pipeline Liability Fund, the Deepwater Port Liability Fund, and the Offshore Oil Pollution Compensation Fund. Fund would be used to provide immediate funding for clean-up and removal efforts (to be reimbursed by the responsible party), to pay claims

in excess of the liability limits of the party responsible, and to pay for research efforts.

- Research: Establishes a research and development program on scientific and operational aspects of spill prevention, response, containment, and recovery with expenditures of up to \$25 million annually. Priority shall be given to research on on-water oil recovery and treatment; prevention of loss from and away from vessels, including the use of values for such purposes and onshore and offshore facilities; prevention and mitigation of shoreline impacts; fisheries and wildlife protection, mitigation and recovery; and protection of public health and safety.
- <u>Prevention</u>: Requires a study by the Coast Guard on the effects of having double bottoms or double hulls on tankers as a prevention method. If found to be effective, new tankers would be required to be built with double hulls.

House Action

House of Representatives action in 1989 focused on two oil spill bills: H.R. 1465, introduced by Rep. Jones (D-NC) and H.R. 3027, introduced by Rep. Anderson (D-CA). Provisions from H.R. 3027 were absorbed into H.R. 1465, the Oil Pollution Act of 1989. H.R. 1465 passed the House on November 9, 1989 with a large number of floor amendments to incorporate provisions from other oil spill bills.

The major provisions of H.R. 1465 are listed below. Where appropriate, differences from the Senate bill are noted.

- <u>Liability</u>: Responsible party shall be liable for all costs and damages associated with clean-up. Liability shall be limited as follows: tankers, \$1200/gross ton up to \$10 million; other vessels, \$600/gross ton; offshore facilities, \$75 million; onshore facilities or deepwater ports, \$350 million; unlimited liability in cases of gross negligence. These limits are slightly higher than those in the Senate bill. The Miller (D-CA)-Studds (D-MA) amendment proposing unlimited liability in the case of simple negligence was defeated in floor debate. The Dept. of Transportation and the oil industry had expressed concern over the Miller-Studds amendment, saying unlimited liability is uninsurable.
- <u>Funding</u>: Funding provisions are virtually identical to the Senate bill.
- <u>Prevention</u>: Requires double hulls on all new vessels built, and the conversion to double hulls on all other vessels within 15 years. (The House has directed their conferees to insist on this provision in the conference bill. The Senate bill only calls for a study of their feasibility.) The bill also adds restrictions on the number of hours in a shift, imposes greater compliance requirements with vessel traffic systems, and allows states to impose pilotage requirements.
- <u>Clean-up</u>: All vessels used to transport oil must have a spill contingency plan approved by the President within one year. A Fish and Wildlife Response Plan will be created as part of the National Contingency Plan.
- Research: Establishes an Interagency Coordinating Committee on Oil Pollution Research. The committee will coordinate a comprehensive program of oil pollution research, development and demonstration among Federal agencies, in cooperation with industry, universities, research institutions, State governments, and other nations, as appropriate. A minimum of 6 regional research centers will be established through competitive grants. Up to \$28 million may be spent annually on research. For FY90-94, at least \$1 million will be available for each regional center.

• <u>International</u>: The House bill does not provide for ratification of the international oil spill conventions, but does allow for the applicability of the international conventions if they are ratified in the future.

Administration Comments on the Proposed Oil Spill Legislation

The Senate and House bills have been circulated to various government departments and agencies for comment prior to the conference committee meeting. Several departments expressed concerns. The Department of Transportation (DOT) has attempted to incorporate these concerns into their response for the consideration of the Senate and House conferees. DOT supports the framework of H.R. 1465 and feels that S. 686 adds an unnecessary layer of supervision to oil spill response. DOT is concerned over the designation of the President as the responsible party for responding to an incident. Although the language differs, both bills contain this provision. DOT is concerned that this removes the responsibility from the spiller, and that spillers can use the Fund as a "bank" from which clean-up costs are "borrowed". H.R. 1465 provides spill responders with limited liability if directed to respond by the President, but not if directed by the spiller. DOT would like to see this limitation apply to all spill responders. DOT is very concerned over the provisions in H.R. 1465 requiring the Coast Guard to evaluate the maritime personnel programs of foreign nations and deny entry to tankers from nations determined to be "deficient". Not only is this difficult, but it detracts from international efforts to set and maintain high standards, and could lead to retaliatory measures. DOT prefers the Senate language on double hulls/double bottoms.

Several departments and agencies expressed concern over the additional responsibilities they would be charged with under such legislation. DOT points out that the Coast Guard's burden would be heaviest of all, with a lengthy list of new tasks assigned it by the bill. Existing resources in all agencies are spread thin, and conferees are asked to consider the burden this legislation places on agency budgets. This legislation will undoubtedly result in additional funding requests from most departments or agencies involved.

International Oil Spill Protocols

The House Committee on Foreign Affairs, Human Rights, and International Organizations has endorsed the ratification of the international oil spill protocols, although this provision was not included in the version of H.R. 1465 which was passed. The 1984 protocols to the 1969 civil liability and 1971 oil spill fund conventions were negotiated at U.S. insistence and raised the maximum shipowner liability from \$18 million to \$78 million. Total coverage per incident, including payments from the International Fund in excess of shipowner liability, was raised to \$250 million. The Senate has previously refused to ratify the protocols because of concern over the possible preemption of coastal state oil spill liability laws. With the emphasis on state's rights shown in the debate on H.R. 1465, the House also appears reluctant to ratify the protocols this session.

The DOT has strongly urged Congress to ratify these protocols. A recent survey completed for DOT indicates the importance of ratification. With U.S. imports rising, the number of foreign tankers delivering oil to U.S. ports has grown 57% in the past 3 years. There is a trend among shipowners to be small operations, with few assets or other resources with which to pay damages in the event of a spill. DOT has indicated that unlimited liability provisions in the proposed oil spill bills would likely encourage a shift to single-asset foreign operations without assets in the U.S. Ratification of the international agreements would give the U.S. access to foreign assets to satisfy claims and would provide a uniform, predictable, and insurable worldwide liability and compensation system. In their response to the conferees, DOT has noted that only the House bill contains the joinder provisions necessary for the implementation of the protocols upon ratification. DOT urges that these provisions be retained in the conference version of the bill.

OCS Leasing Moratoria

Since 1982, leasing moratoria have been included by Congress in the annual appropriations bills for the Department of the Interior (DOI). The number of areas covered by these moratoria have grown. After the Exxon Valdez oil spill in March 1989, OCS leasing moratoria have been proposed for a number of areas as a way to prevent spills. The FY90 DOI appropriations bill included the largest number of leasing moratoria to date.

OCS leasing moratoria included in the FY90 DOI appropriations bill cover seven areas in the North Aleutian Basin, offshore California, the North Atlantic, the Mid-Atlantic, and the Eastern Gulf of Mexico off the coast of Florida.

- North Atlantic: The area covered includes the seabed shallower than 400 meters in the Georges Bank area. Interior may not conduct "preleasing and leasing activities."
- Mid-Atlantic: The area covered includes the first 50 miles off the Atlantic coast from Maryland to Massachusetts. Interior may not conduct "leasing activities" (including issuing a notice of sale) and may not issue permits for test wells or seismic surveys using explosives.
- Eastern Gulf of Mexico: In the area south of 26 degrees N. latitude, the Secretary may not issue a final notice of sale for Sale 116, Part II. Also, the Secretary may not approve "drilling or other exploration activity" on 73 existing leases.
- Offshore California: Three areas off California are currently restricted. For the lease sales in Southern California (Sale 95) and Northern California (Sale 91), Interior may not issue a draft environmental impact statement (EIS) until June 1990. For those sales, Interior may not issue a final EIS during the fiscal year. Interior also may not permit test well drilling or seismic surveys using explosives in the areas of Sales 95, 91, and 119 (Central California).
- North Aleutian Basin (Bristol Bay): Interior may not allow "drilling or other exploration activity" on the 23 existing leases and may not conduct "leasing."

Additionally, in the conference report (but not in the text of the appropriations law) Congress has asked the Secretary of the Interior to report by March 1, 1991 on three issues related to leasing in the North Aleutian Basin in Alaska. These include a study of the effects of the Valdez spill on fisheries and application of these findings to Bristol Bay fisheries, a determination of whether oil spill contingency plans for the area are adequate for "a maximum volume spill during the exploration phase," and a study of options for "the possible repurchase" of existing leases in the area. DOI is to recommend whether Congress should exercise any of these repurchase options.

CZMA Reauthorization

The Coastal Zone Management Act is up for reauthorization in Congress this year. Rep. Jones (D-NC) has introduced H.R. 4030 which would reauthorize the CZMA and overturn a 1984 Supreme Court decision which allows the federal government to conduct offshore lease sales over the protest of coastal states. The CZMA requires that federal offshore activities be consistent with state coastal zone management plans. The Supreme Court decision states that OCS lease sales do not directly affect coastal states. Industry and the Interior Department have reacted negatively to the proposal and debate will likely be heated. Offshore leasing has become such a hot topic as an adjunct to discussions on oil spills, that some in Congress may consider reopening the Outer Continental Shelf Lands Act. Although it is unclear whether

this action will be taken, or how far Congress would be willing to go, any reopening would likely lead to much more restrictive leasing and development practices.

Other Legislative Actions Affecting Offshore Development

H.R. 3751, introduced by Rep. Boxer (D-CA) prohibits DOI from issuing a lease, permit or license for exploration for or extraction of oil or gas from the covered areas. Areas where activities would be prohibited include a 50-mile buffer zone off the coasts of Maryland and Massachusetts; a 100-mile buffer zone off the coasts of Florida, Georgia, South Carolina, Virginia, Delaware, New Hampshire, Maine, Washington, Oregon and Alaska; a 125-mile buffer zone off the States of New Jersey, New York, Connecticut and Rhode Island; a 145-mile buffer zone off the coast of California; a 175-mile buffer zone off the coast of North Carolina; and to all areas outside these zones where past Congressional moratoria have occurred. The bill also directs DOI to buy back the 73 existing leases in the eastern Gulf of Mexico south of 26 degrees North latitude and the 23 existing leases in the North Aleutian Basin. Alternative options are also to be developed for compensating leaseholders on the blocks comprising the proposed Mobil exploration unit offshore North Carolina.

H.R. 3861, introduced by Rep. Jones (D-NC) was prompted by Mobil's plans to explore its leases off the coast of North Carolina. The bill would prohibit leasing, exploration, and development off the coast of North Carolina. Rep. Jones argues that the environmental impact statements (EIS) issued by DOI prior to leasing are too old to provide reliable estimates of the current environmental impact of drilling in the area and that not enough is known to adequately protect this environmentally fragile area. Mobil's environmental report to DOI, dated November 1989, is also considered inadequate. The bill would therefore prohibit the Secretary of the Interior from issuing any new leases, approving an exploration plans, approving any permit to drill, or permit any drilling for oil or gas on any lands of the OCS offshore North Carolina.

It is unclear whether either of these bills stands a chance of passage this session. With the recent oil spill off the coast of California, environmentalists will likely push for some action relative to California. Interior Secretary Manual Lujan in mid-February appealed to Congress to lift its current bans on new OCS development and to open the Arctic National Wildlife Refuge for leasing, stating these resources were needed to meet the objectives of the national energy strategy. While it is unlikely that all bans will be lifted, leasing will certainly be a topic for Congressional action during 1990.