

INTERNAL MANAGEMENT DOCUMENT

AUGUST 1, 1983

HARZA • EBASCO

Susitna Joint Venture
Document Number

3537

SUSITNA Project Status Report



Susitna Project
File # 6.2.10

INTERNAL MANAGEMENT DOCUMENT

Federal Energy Regulatory Commission
— Data For Decisions

Foreword

The proposed Susitna Hydroelectric Project would be the most costly and complex hydroelectric project ever considered by the Federal Energy Regulatory Commission. The Alaska Power Authority proposes to construct, at a cost of 5.1 billion dollars (January, 1982 dollars), an 885 foot-high earthfill dam and a 645 foot-high concrete arch dam forming two reservoirs with a total surface area of 45,800 acres. Two underground powerhouses would have a total generating capacity of 1,620 MW.

Recognizing the significance of the project, the Commission has established a Project Manager to coordinate the processing of the license application. The Project Manager is the Commission's primary source of information on the progress of the Susitna Hydroelectric Project; the Susitna Project Status Report is the major vehicle for reporting that information. The Susitna Project Status Report will be updated monthly by the Project Management Team. Any comments should be directed to the Commission's Project Manager, William Wakefield at (202) 376-1911. An explanation of the logic networks can be found in Appendix C.

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Project Management

Susitna Hydroelectric Project

PROJECT MANAGER SUMMARY

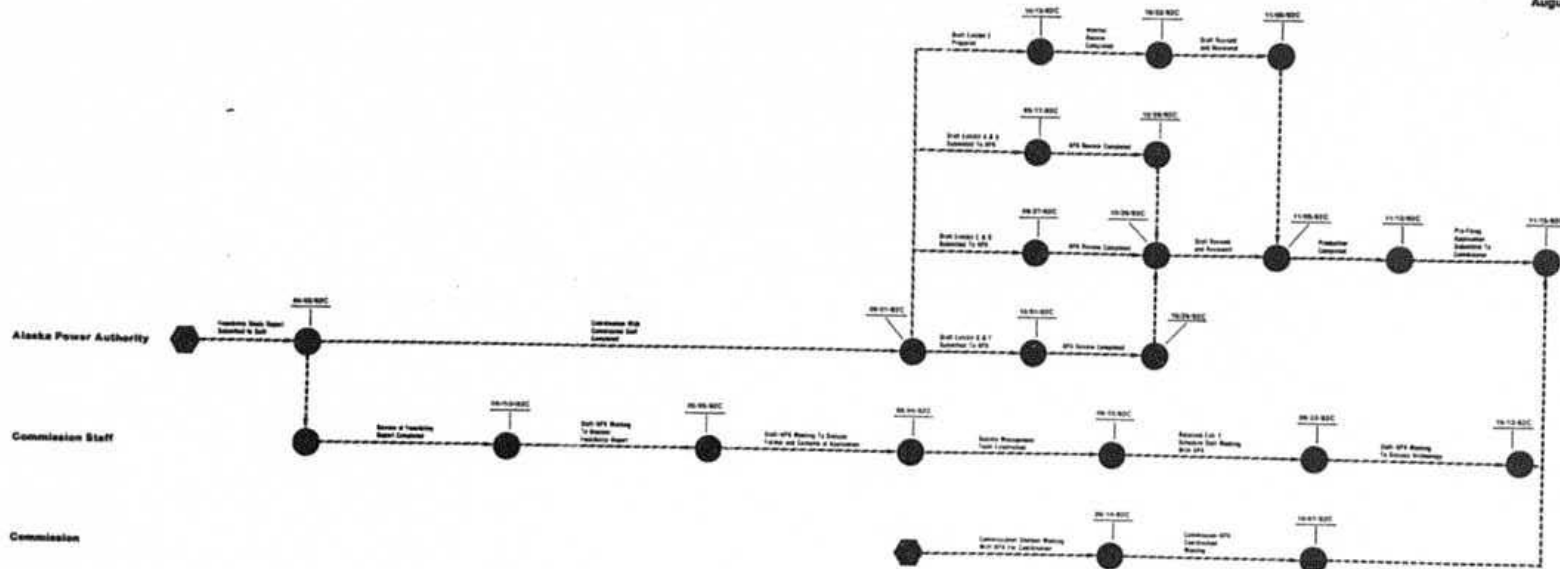
The Alaska Power Authority (APA) filed their corrected application on July 11, 1983. The FERC staff review of that corrected application has been completed. The application has been determined adequate and accepted as of July 29, 1983.

As a result of APA requiring additional time to correct their application, new target dates (indicated by the designation, T-1) are shown on pages 5, 6, 7, 9-13, and 15-24 of the Susitna Project Status Report. The schedules for Argonne and Oak Ridge National Laboratories were previously modified to allow for continuation of effort on certain Draft Environmental Impact Statement sections of the existing environment.

FERC staff and APA will conduct site investigations of the Watana and Devil Canyon damsites and project transmission lines during August 14-27, 1983.

Susitna Hydroelectric Project
ACTIONS PRIOR TO PRE-FILING

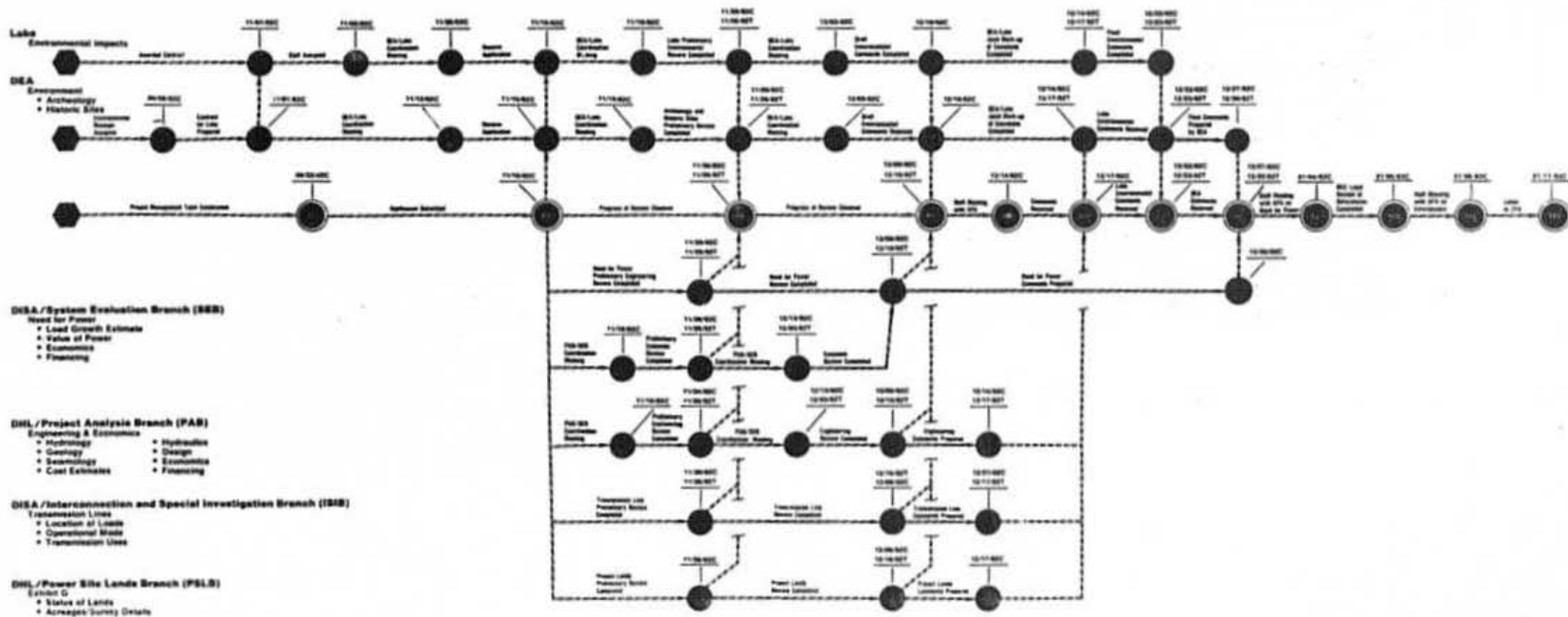
August 1, 1983



Internal Management Document

**Susitna Hydroelectric Project
PRE-FILING REVIEW SCHEDULE**

August 1, 1983



Susitna Hydroelectric Project

LICENSING PROCESS

The Federal Energy Regulatory Commission is charged with the responsibility of fostering the comprehensive development of the Nation's waterways consistent with public safety. The Susitna River is a public resource; therefore, the Commission must ensure that any hydroelectric development on the Susitna River is in the best interest of the public.

When the Susitna Hydroelectric Project license application is filed by the Alaska Power Authority (APA), the application is first reviewed by staff to ensure that it contains all the information necessary for the Commission to assess the project. When the application is deemed acceptable for processing by the Director, Office of Electric Power Regulation, the Commission initiates a public and agency comment period. Public notice in the Federal Register and in Alaskan newspapers will invite the public to comment on and participate in the licensing process. Federal, State, and local agencies are provided copies of the application and are asked to provide comments in their respective areas of expertise.

Concurrent with the public comment period, Commission staff experts initiate a three-pronged evaluation of the Susitna Project. Electrical engineers and economists will evaluate the adequacy of electrical load forecasts for Alaska and the need for Susitna Project power. Geologists and civil engineers will evaluate the integrity of project structures. A team of environmental scientists will prepare an environmental impact statement assessing the project's potential impacts on the Alaskan ecosystem. Upon completion of these analyses, the staff positions on need for power, project integrity, and environmental impacts may be subjected to the scrutiny of hearings before an administrative law judge. At these hearings, intervenors in the Susitna proceeding have the opportunity to support staff's analysis or present opposing positions. At the conclusion of the hearing, the administrative law judge prepares an opinion on the issues.

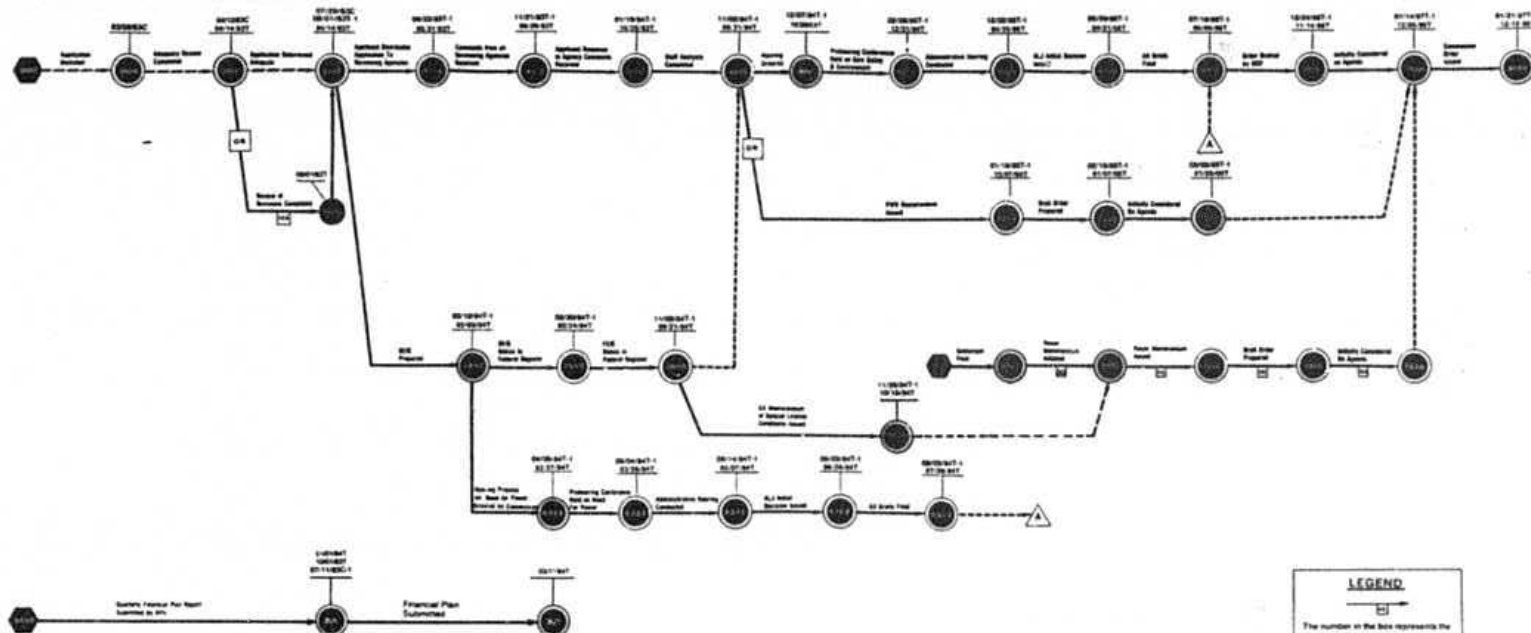
After the administrative law judge has rendered an initial decision, the five Commissioners will make the final decision on whether or not to issue the license for the Susitna Project and what conditions to attach to the license, if issued. If a hearing has been held, the Office of Opinions and Review, with guidance from the Commissioners, will prepare the license document. The Commissioners will review the entire record for the Susitna Project. In order for the APA to receive a license for the Susitna Project, the record must convince a majority of the Commissioners that the project is needed, that the structures will be safe, and that the environmental impacts of construction and operation will be adequately mitigated.

Susitna Hydroelectric Project LICENSING SCHEDULE

Level A

August 1, 1983

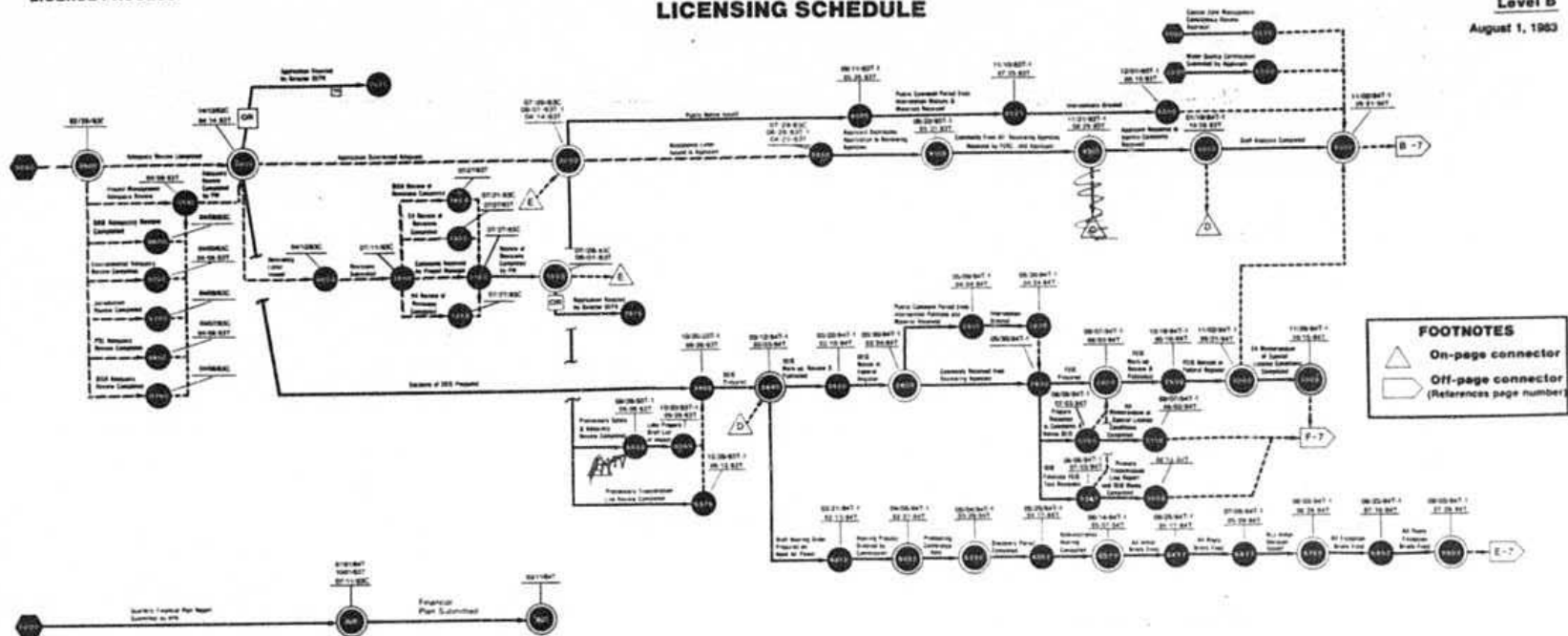
SUMMARY OF MAJOR MILESTONES



LICENSE PROCESS

Susitna Hydroelectric Project LICENSING SCHEDULE

Level B
August 1, 1963



Susitna Hydroelectric Project LICENSING SCHEDULE

The diagram illustrates a complex power distribution network. It features multiple power sources at the top, including a 'Main Transformer' and several 'Generator' units. These are connected to a series of 'Distribution Buses' and 'Transformers'. Handwritten annotations include '6940' near a transformer, 'F-4' near a bus, and '2/10/55' at the bottom right. The system is designed to provide power to various shipboard systems, as indicated by the labels for different types of loads and equipment.

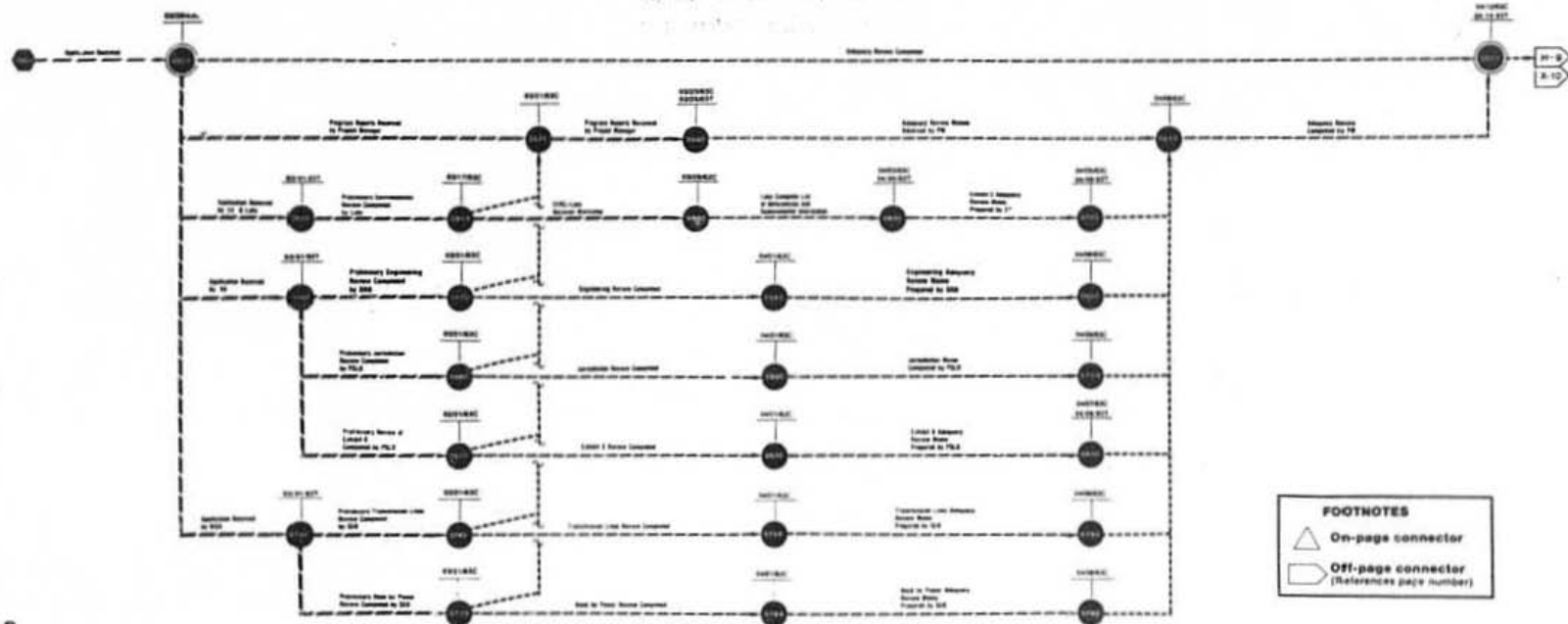
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APPLICATION REVIEW

Susitna Hydroelectric Project LICENSING SCHEDULE

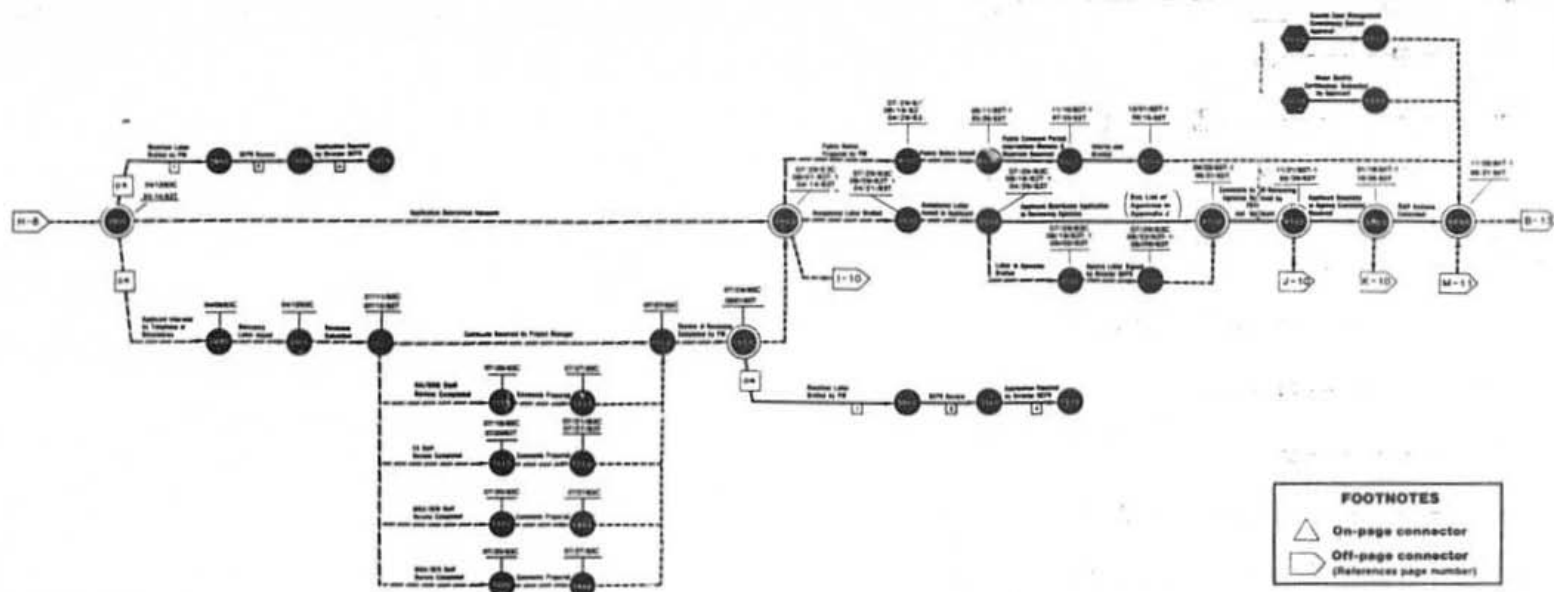
Level C
August 1, 1963



APPLICATION REVISIONS &
AGENCY COMMENT PERIOD

Susitna Hydroelectric Project
LICENSING SCHEDULE

Level C
August 1, 1983



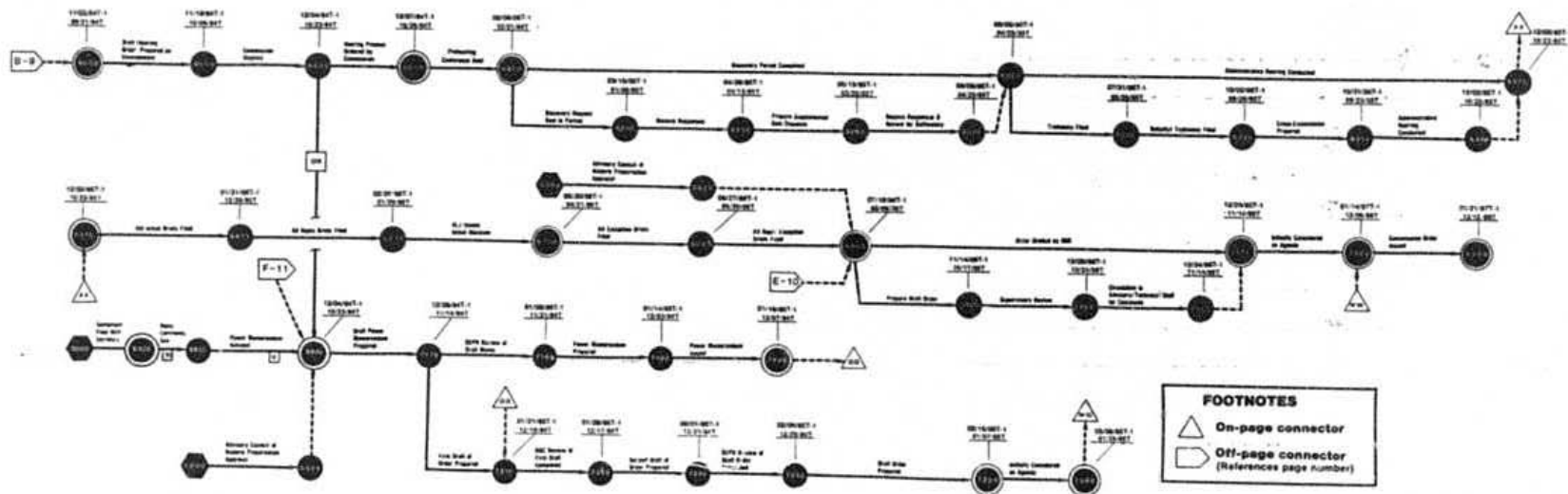
Level C
August 1, 1983



**Susitna Hydroelectric Project
LICENSING SCHEDULE**

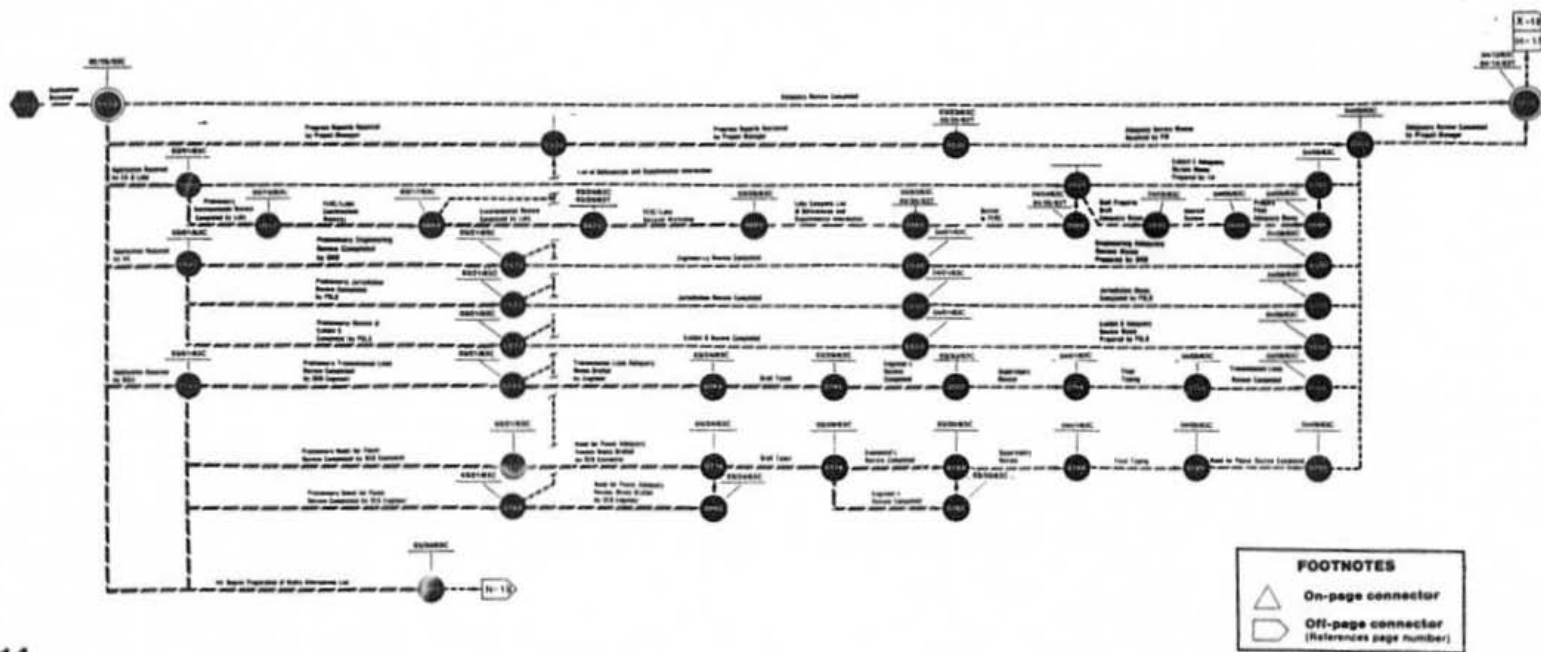
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Level C
August 1, 1983

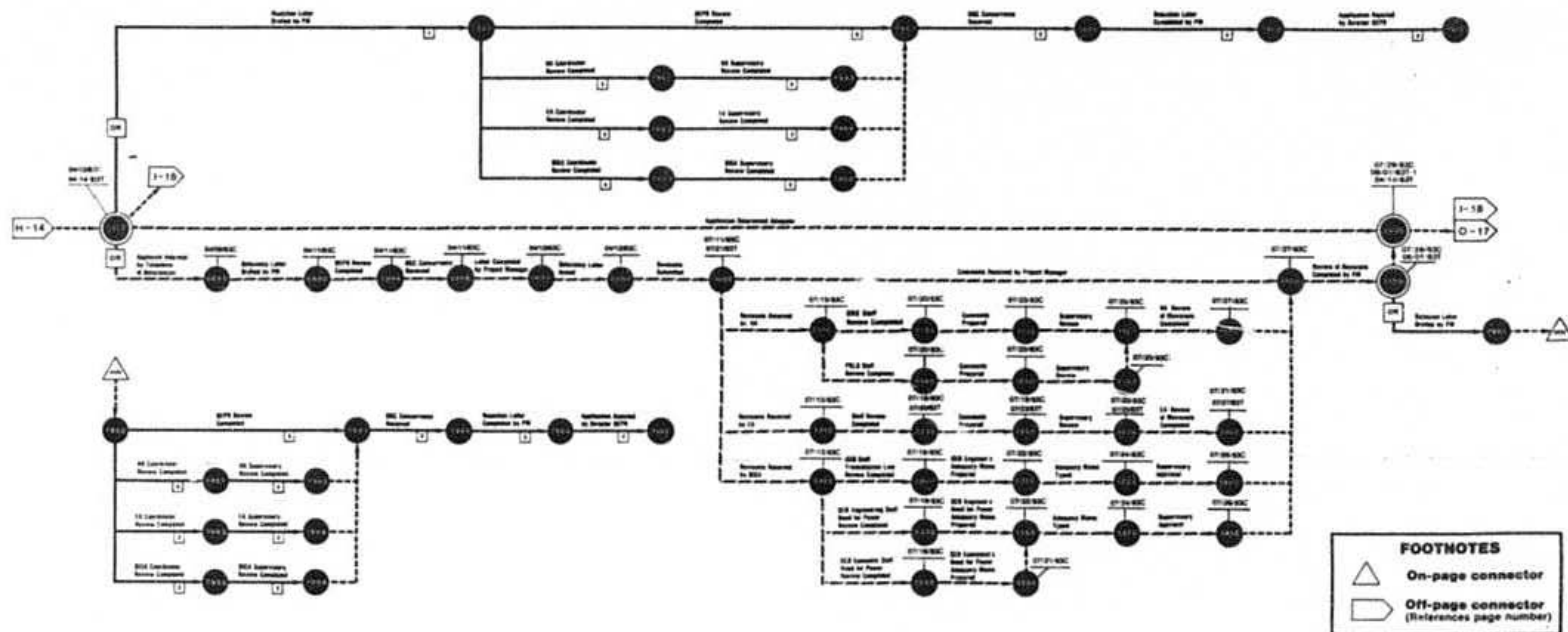


Susitna Hydroelectric Project LICENSING SCHEDULE

Level D
August 1, 1993



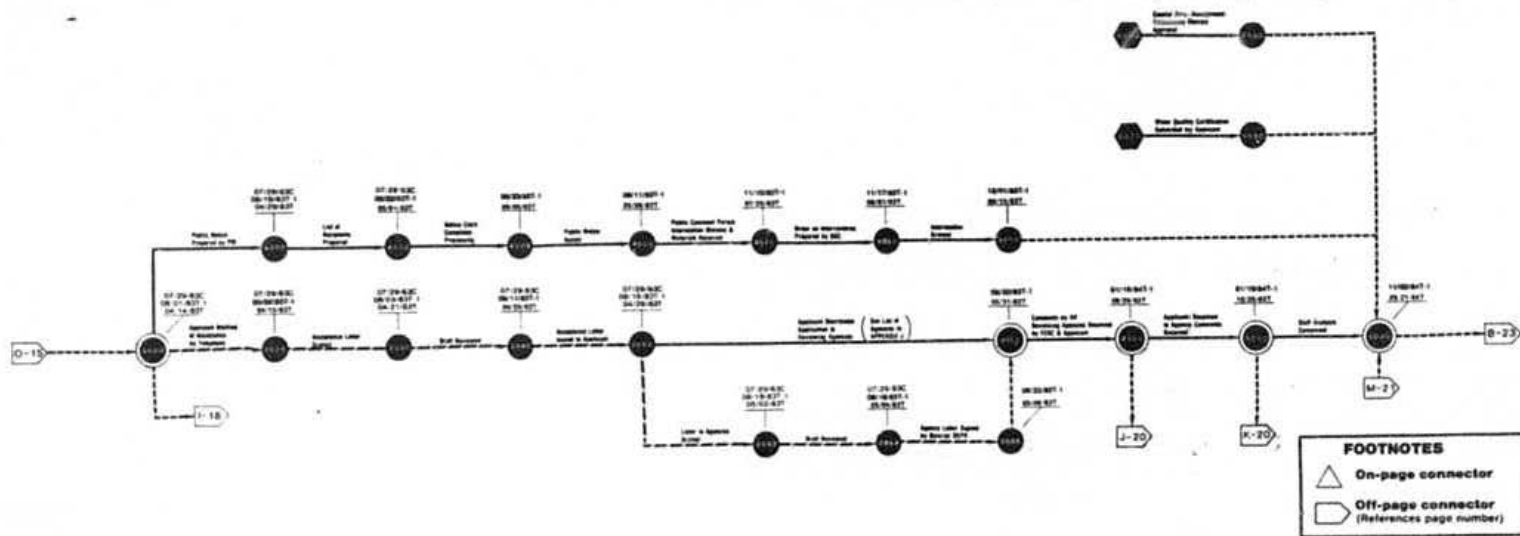
APPLICATION REVISIONS

Susitna Hydroelectric Project
LICENSING SCHEDULELevel D
August 1, 1983

AGENCY COMMENT PERIOD

Susitna Hydroelectric Project LICENSING SCHEDULE

Level D
August 1, 1983



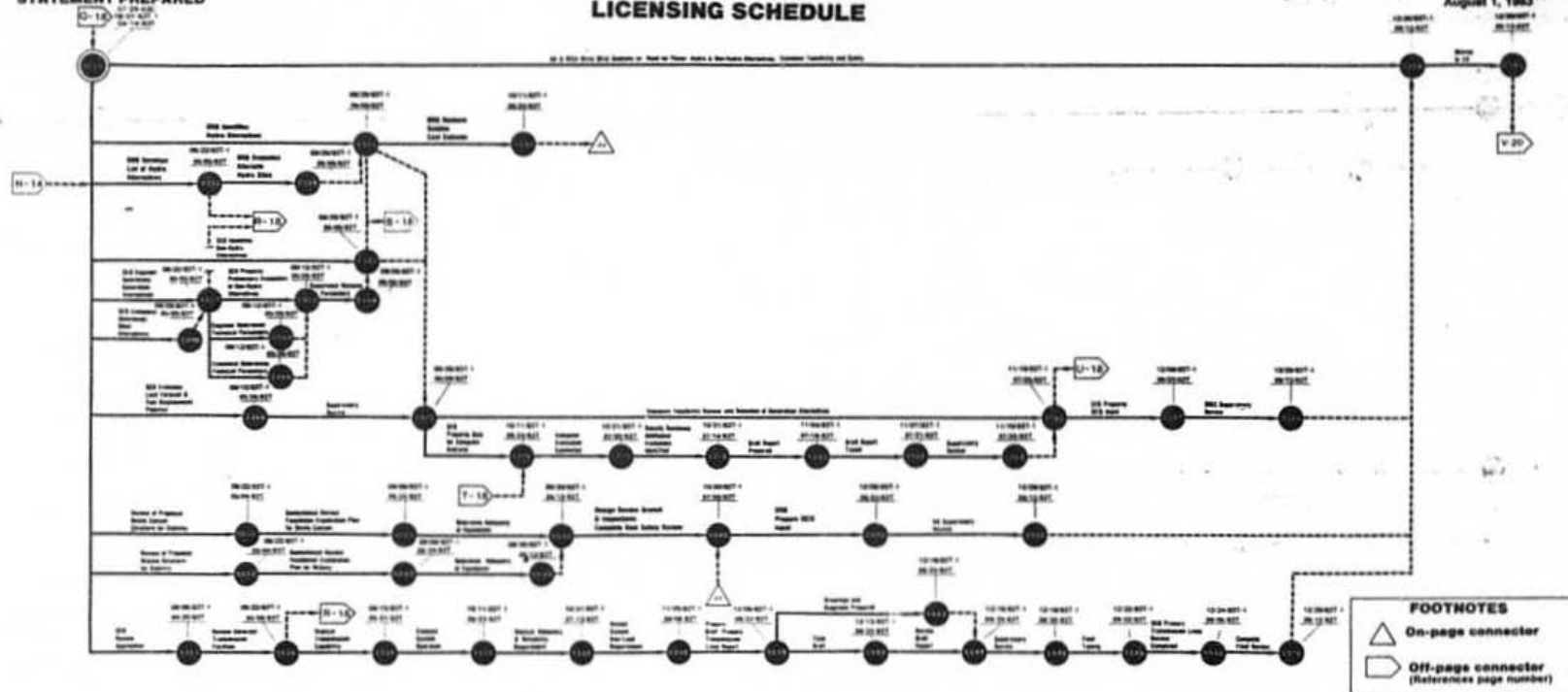
Susitna Hydroelectric Project LICENSING SCHEDULE

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**DRAFT ENVIRONMENTAL IMPACT
STATEMENT PREPARED**

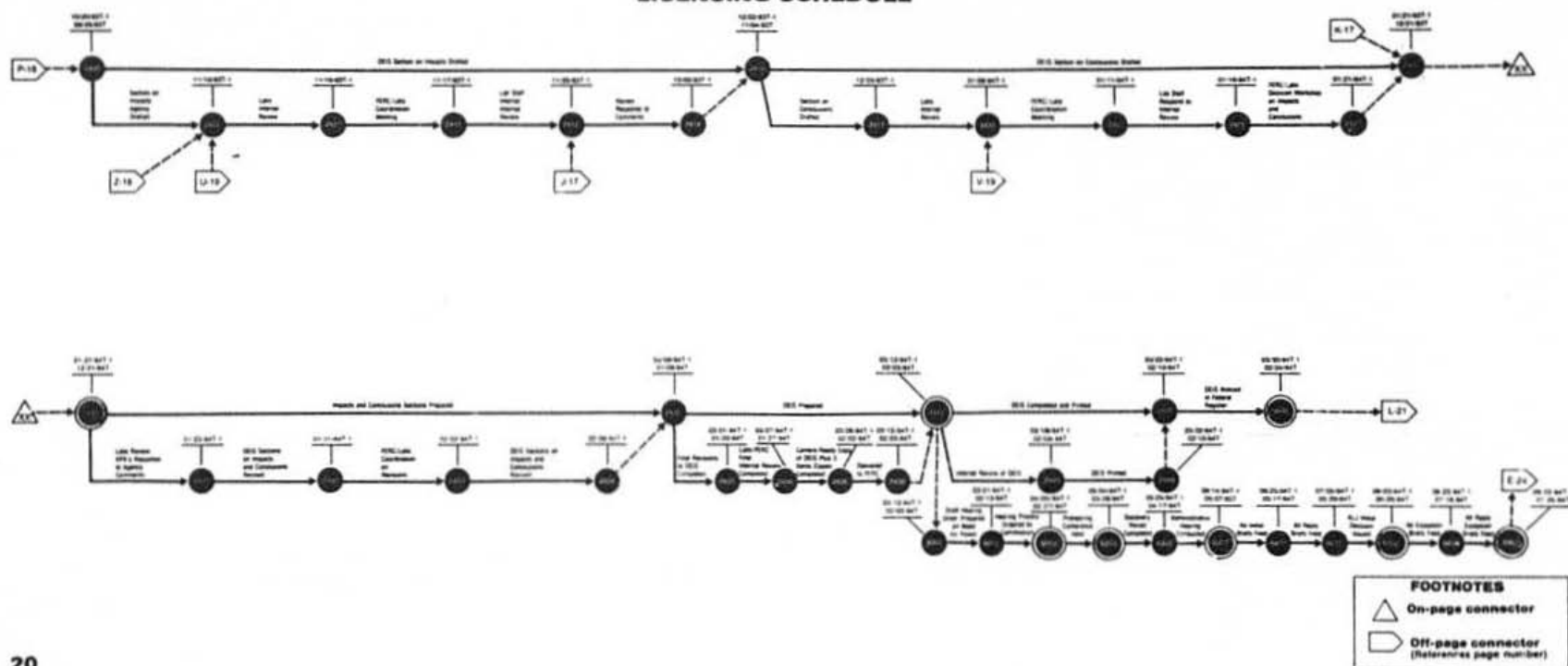
**Susitna Hydroelectric Project
LICENSING SCHEDULE**

Level D
August 1, 1983



Susitna Hydroelectric Project LICENSING SCHEDULE

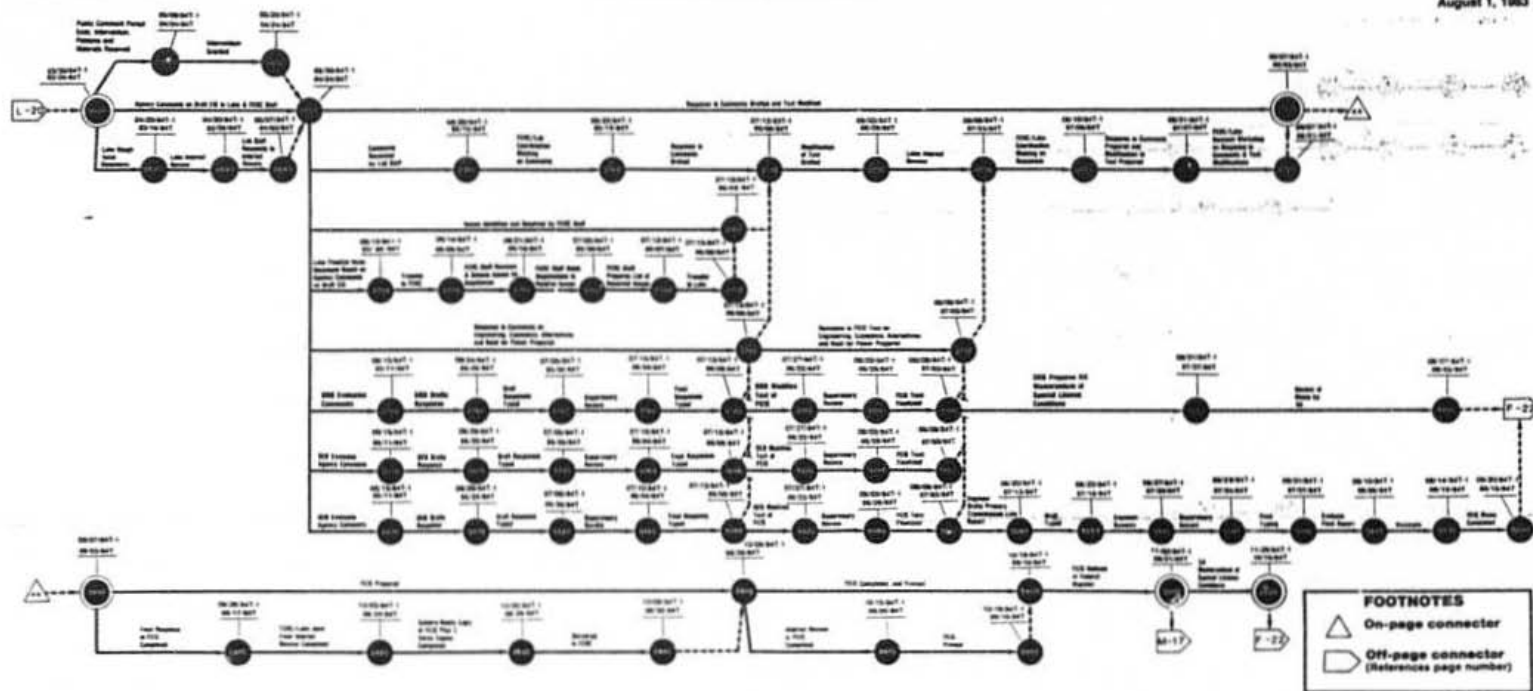
Level D
August 1, 1983



**FINAL ENVIRONMENTAL
IMPACT STATEMENT**

**Susitna Hydroelectric Project
LICENSING SCHEDULE**

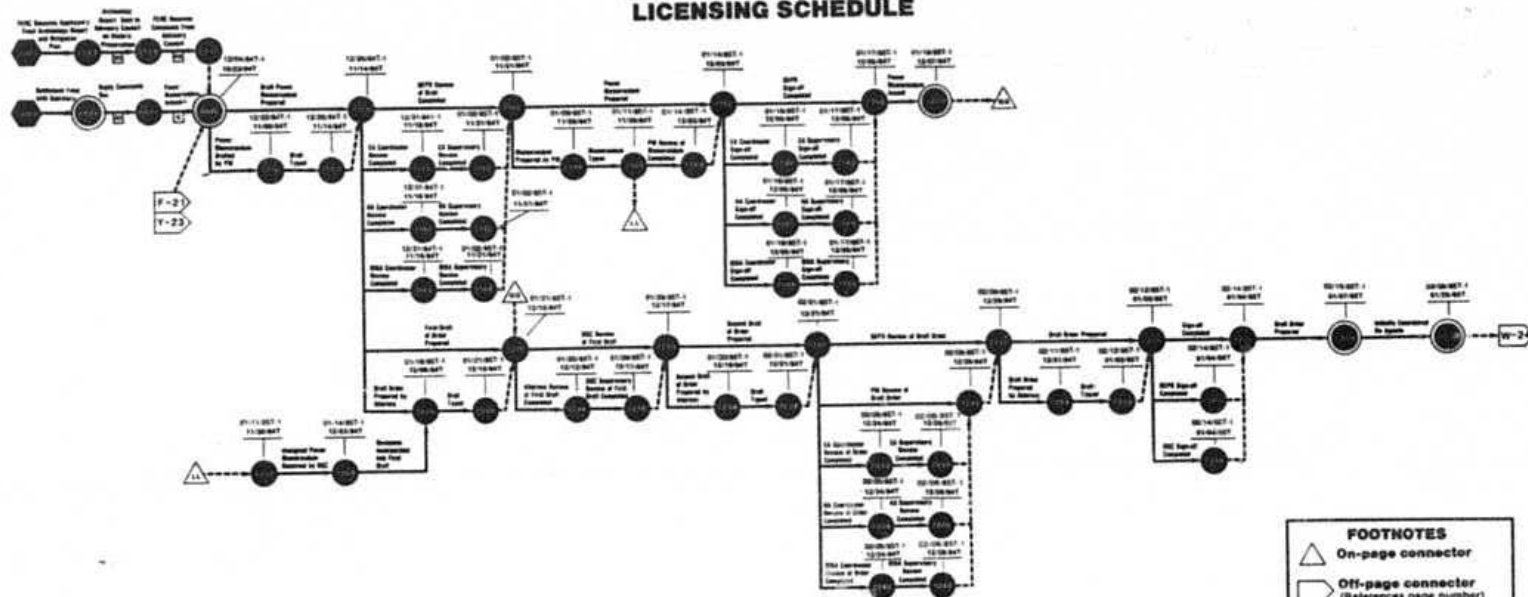
Level D
August 1, 1983



POWER MEMORANDUM

Susitna Hydroelectric Project
LICENSING SCHEDULE

Level D
August 1, 1983



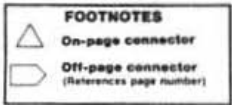
Susitna Hydroelectric Project LICENSING SCHEDULE

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August 1, 1963

August 1, 1963

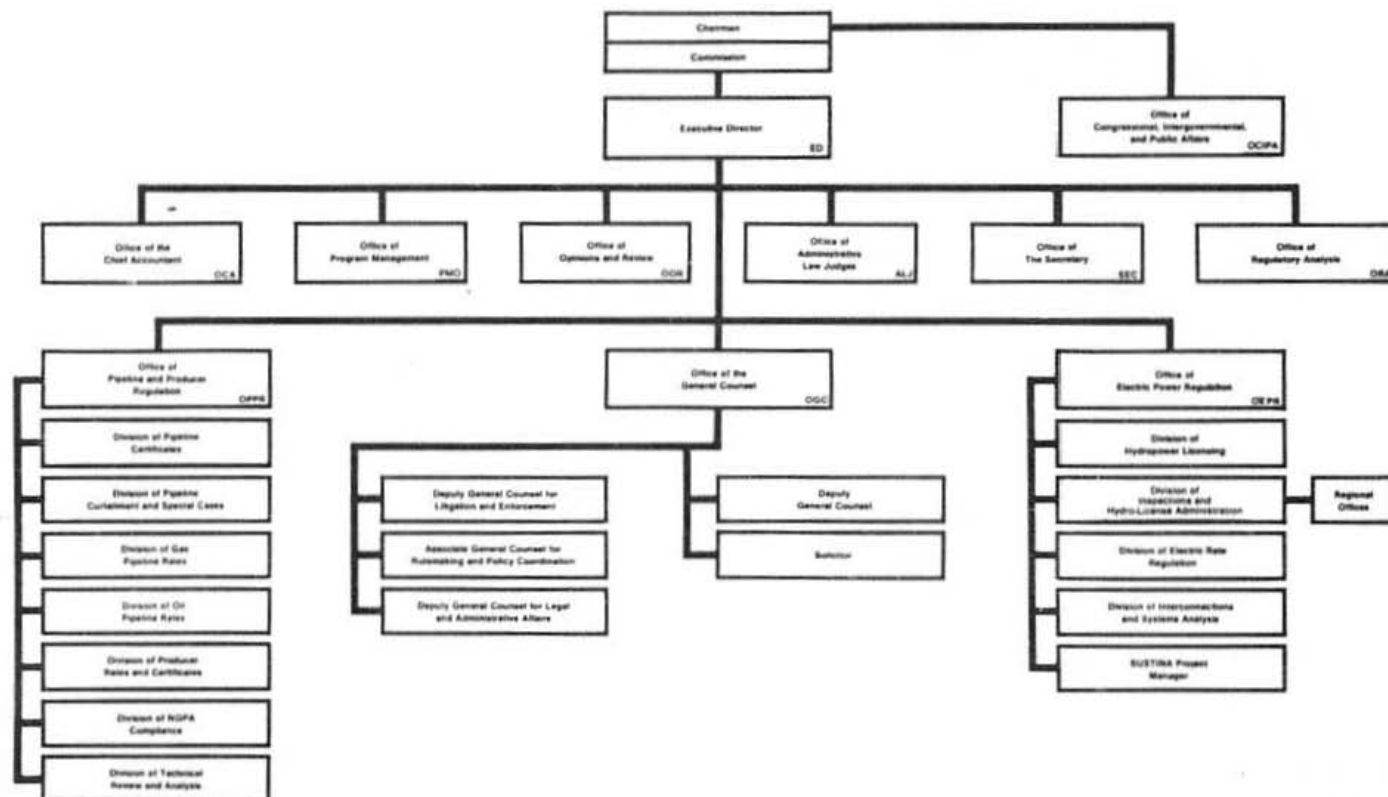


Appendices

APPENDIX A

Federal Energy Regulatory Commission (FERC)

Organization Chart



APPENDIX B

FEDERAL ENERGY REGULATORY COMMISSION WASHINGTON, D.C.

NO. 100-1-100-100

September 22, 1982

MEMORANDUM TO: The Chairman
Commissioners
Executive Director
General Counsel

FROM: Lawrence E. Anderson
Director, Office of Electric Power
Regulation

SUBJECT: Sunitna Project Management Team

A special project team has been formed to monitor the pre-filing review of the Sunitna Hydroelectric Project. I have appointed William C. Wakefield, II, as the project manager. All communications, memos, directives and meetings will be coordinated by Mr. Wakefield. His phone number is 374-9233, and he will be located in room 301, 400 1st Street.

Attachment

Attachment A

SUNITNA PROJECT MANAGEMENT TEAM

The Sunitna Hydroelectric Project in Alaska is among the larger hydroelectric projects (1610 MW) in the United States. The project is scheduled to be completed in 20 years at a cost in excess of \$1 billion. The project will be developed by the Alaska Power Authority (APA). It is estimated that a one-day delay in the construction of the Sunitna project would increase total project costs by approximately \$1 million. It is, therefore, imperative that the Federal Energy Regulatory Commission (FERC) identify any deficiencies in the pre-filing application such that APA may file an acceptable application at the earliest possible date.

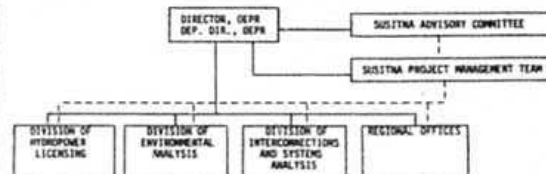
A special project management team has been formed to monitor and coordinate the pre-filing review of the Sunitna Hydroelectric Project. It is the responsibility of this team to coordinate review of the application for adequacy and to advise APA concerning any deficiencies prior to formal filing.

The "Sunitna Project Management Team" is headed by a project manager who reports directly to the Director, Office of Electric Power Regulation (OEP). The project manager:

- provides the necessary coordination and liaison with all divisions of OEP, with all other FERC offices, with Federal, State, and local agencies, the general public, and the applicant.
- initiates correspondence with the APA and all other Federal, State and local agencies, and replies to inquiries from members of the Congress and the general public.
- reviews and summarizes staff reports and recommendations on the applicant data.
- examines the pre-filing application to determine compliance with FERC Rules and Regulations.
- informs APA of engineering, environmental or other deficiencies as they become known.
- meets with the Advisory Committee to report on the status of the pre-filing review.

A Sunitna Advisory Committee which reports to the Director, OEP, is also established. It is the responsibility of this Committee to ensure adequate and timely technical input to the application process, highlight problem areas and potential delays, and recommend action to the Director of OEP. The Sunitna Advisory Committee is composed of the Deputy Director of OEP, the Directors of the Divisions of Hydroelectric Licensing, Environmental Analysis, and Interconnections and Systems Analysis, and the Special Assistant to the Director, OEP.

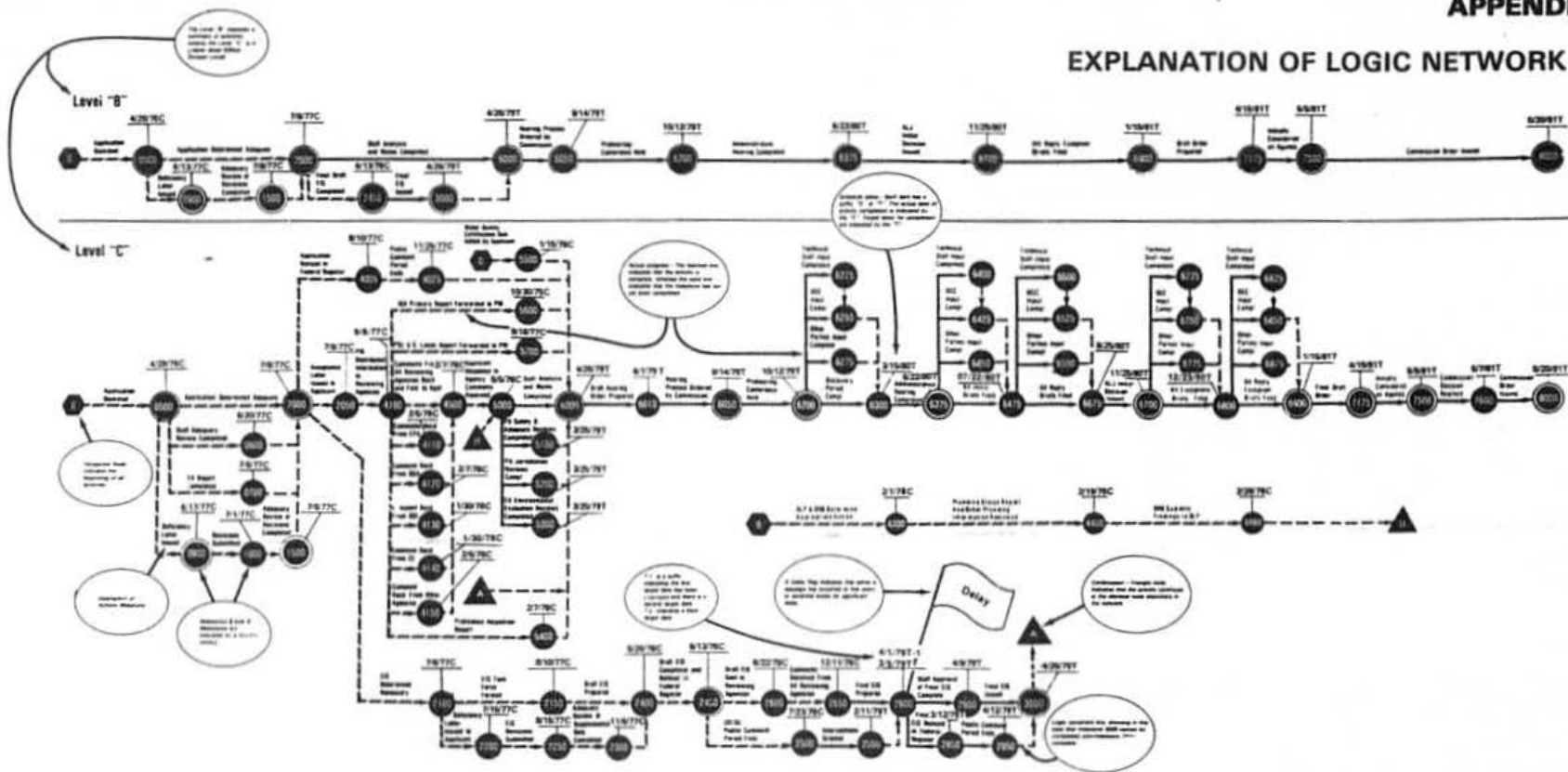
Attachment B



— REPORTING
- - - COORDINATION

APPENDIX C

EXPLANATION OF LOGIC NETWORK



ABBREVIATIONS

APPENDIX D

AF	Acre Feet
ALJ	Administrative Law Judge
APA	Alaska Power Authority
BLM	Bureau of Land Management
C	Completion Date
CE	Corps of Engineers
DEIS	Draft Environmental Impact Statement
DHL	Division of Hydropower Licensing, FERC
DISA	Division of Interconnections and Systems Analysis, FERC
DOA	Department of Agriculture
DOE	Department of Energy
DOI	Department of the Interior
DRB	Design Review Branch
EA	Environmental Analysis
ED	Executive Director, FERC
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FEIS	Final Environmental Impact Statement
FERC	Federal Energy Regulatory Commission

FPC	Federal Power Commission
HA	Hydropower Analysis
ISIB	Interconnection and Special Investigation Branch, DISA, FERC
KV	Kilovolt
KW	Kilowatt
MW	Megawatt
N/A	Does Not Apply
NEA	National Energy Act
NEPA	National Environmental Policy Act
OEPR	Office of Electric Power Regulation, FERC
OGC	Office of General Counsel, FERC
OOR	Office of Opinions and Review, FERC
PM	Project Manager, FERC
PSLB	Power Site Lands Branch, DHL, FERC
SEB	System Evaluation Branch, DISA, FERC
SFRO	San Francisco Regional Office
T	Target Date
USGS	United States Geological Survey

ABBREVIATIONS

APPENDIX D

AF	Acre Feet
ALJ	Administrative Law Judge
APA	Alaska Power Authority
BLM	Bureau of Land Management
C	Completion Date
CE	Corps of Engineers
DEIS	Draft Environmental Impact Statement
DHL	Division of Hydropower Licensing, FERC
DISA	Division of Interconnections and Systems Analysis, FERC
DOA	Department of Agriculture
DOE	Department of Energy
DOI	Department of the Interior
DRB	Design Review Branch
EA	Environmental Analysis
ED	Executive Director, FERC
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FEIS	Final Environmental Impact Statement
FERC	Federal Energy Regulatory Commission

FPC	Federal Power Commission
HA	Hydropower Analysis
ISIB	Interconnection and Special Investigation Branch, DISA, FERC
KV	Kilovolt
KW	Kilowatt
MW	Megawatt
N/A	Does Not Apply
NEA	National Energy Act
NEPA	National Environmental Policy Act
OEPR	Office of Electric Power Regulation, FERC
OGC	Office of General Counsel, FERC
OOR	Office of Opinions and Review, FERC
PM	Project Manager, FERC
PSLB	Power Site Lands Branch, DHL, FERC
SEB	System Evaluation Branch, DISA, FERC
SFRO	San Francisco Regional Office
T	Target Date
USGS	United States Geological Survey

Susitna Hydroelectric Project PROJECT DESCRIPTION

APPENDIX E

The Alaska Power Authority's Susitna Hydroelectric Project would consist of two developments along the Susitna River between Anchorage and Fairbanks, Alaska and related access and transmission facilities. The project would have a total installed capacity of 1,620 MW and would provide an average of 6,910 GWh of energy annually when completed in the year of 2002. The Susitna Hydroelectric Project is estimated to cost 5.1 billion dollars (January 1982 dollars).

The upstream Watana Development (See Watana General Arrangement) would include an 885 foot-high earthfill dam with a crest length of 4,100 feet forming a 48 mile-long reservoir with a surface area of 38,000 acres and a usable storage capacity of 3.7 million acre-feet at normal maximum water surface elevation 2,185 feet. Two chute spillways would be provided on the right abutment. A concrete, gated intake structure on the right abutment would lead to six 17 foot-diameter penstocks terminating in an underground powerhouse containing six 170 MW generating units. The first four units would come on line in January 1994, followed in July 1994 by the final two units.

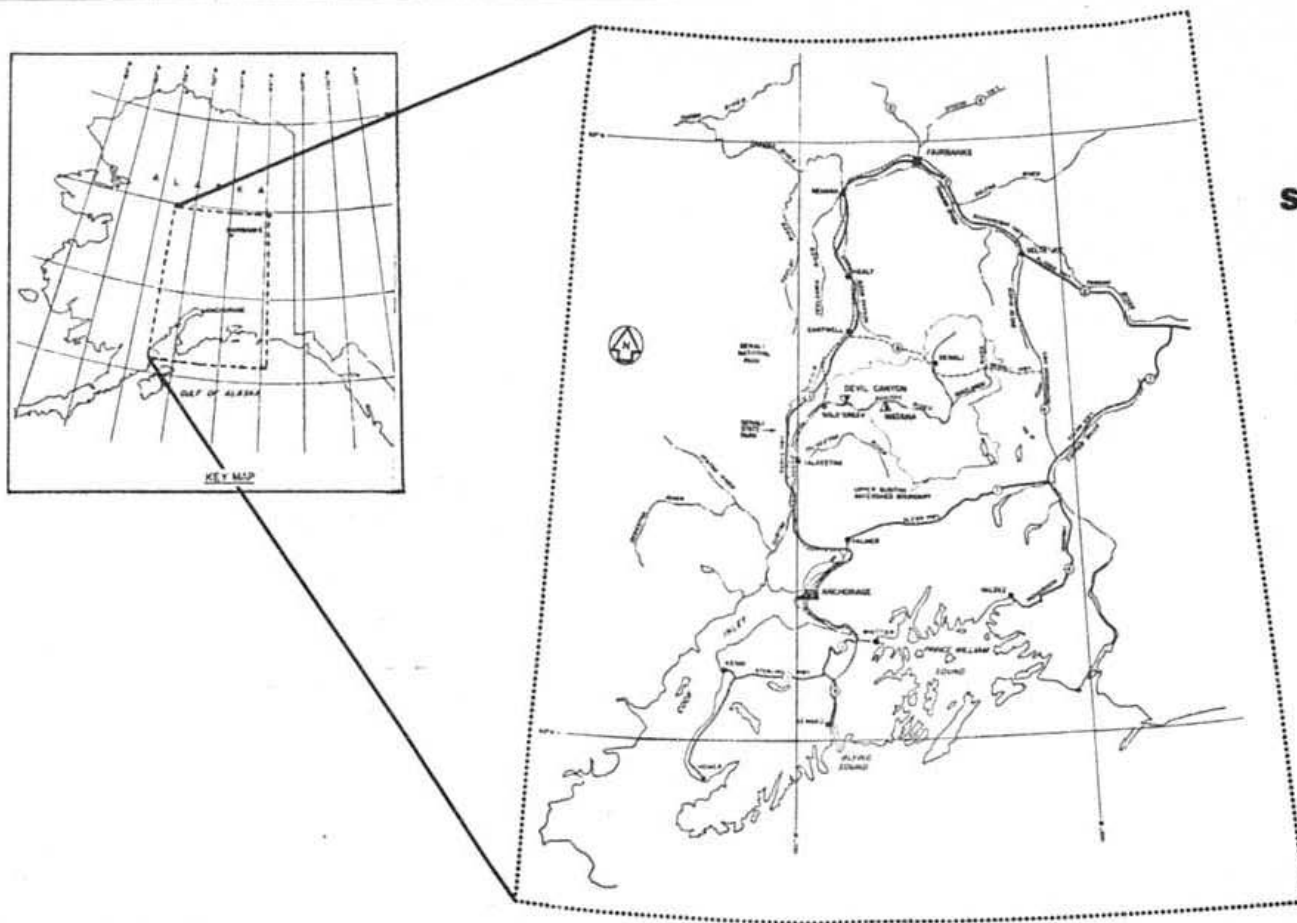
The Devil Canyon Development (See Devil Canyon General Arrangement) would include a 645 foot-high, double-curved, concrete thin arch dam forming a 26 mile-long reservoir with a surface area of 7,800 acres and a usable storage capacity of 350,000 acre-feet at normal maximum water surface elevation 1,455 feet. A 245 foot-high, rock-fill saddle dam would be located on the left abutment. A spillway would be provided on each abutment. A concrete, gated intake structure on the right abutment would lead to four 20 foot-diameter penstocks terminating in an underground powerhouse containing four 150 MW generating units. The Devil Canyon Development would become operational in the year of 2002.

As part of the Susitna Hydroelectric Project, two 26 mile-long, 345 kV transmission lines would be constructed from Watana to Devil Canyon. From Devil Canyon, two 195 mile-long, 345 kV transmission lines would extend to the Fairbanks area and three 84 mile-long, 345 kV transmission lines would extend to Anchorage.

An access road would be constructed from the Denali Highway south to Watana and then west to Devil Canyon. A 6,000 foot-long airstrip and a permanent town for operation and maintenance personnel would be constructed at Watana.

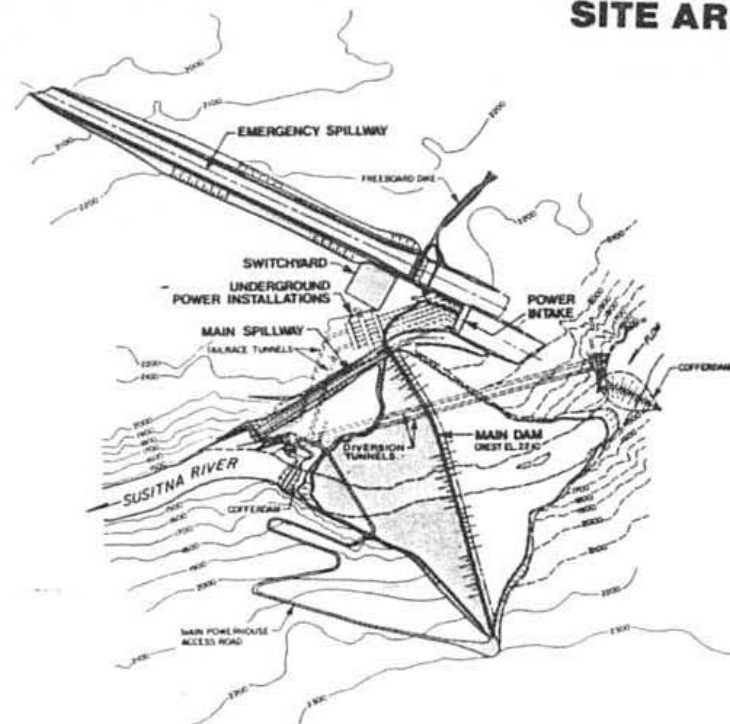
APPENDIX F

Susitna Hydroelectric Project LOCATION MAP

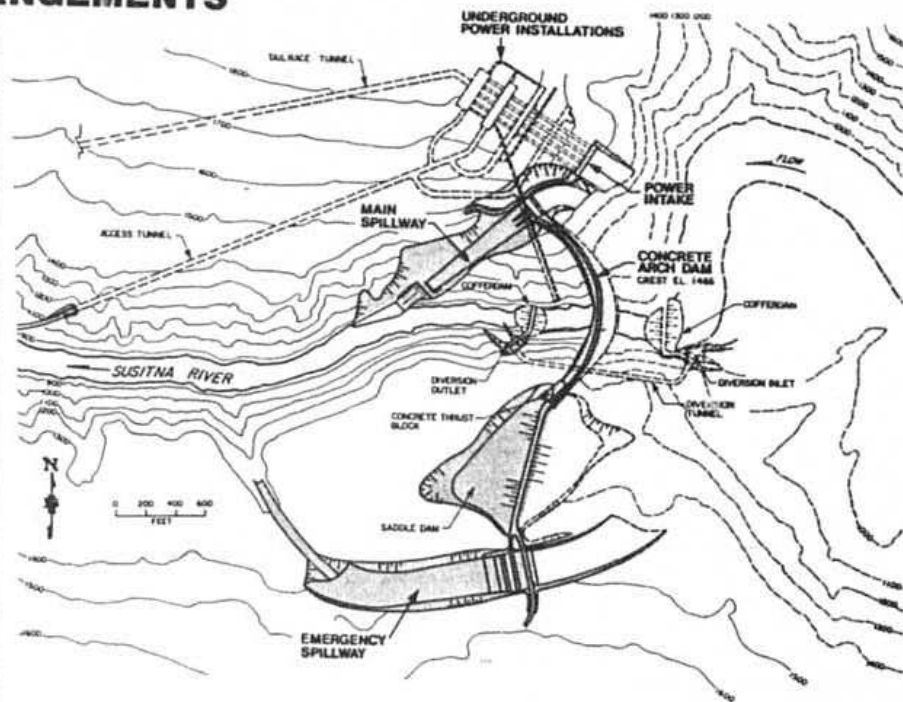


Susitna Hydroelectric Project SITE ARRANGEMENTS

APPENDIX G



WATANA GENERAL ARRANGEMENT



DEVIL CANYON GENERAL ARRANGEMENT

Susitna Hydroelectric Project KEY PERSONNEL

APPENDIX H

FERC Staff

Project Manager: William Wakefield	(202) 376-1911
Engineering/Environment: Director, Division of Hydroelectric Licensing: Quentin Edson	(202) 376-9171
Coordinator: Gerald Wilson	(202) 376-9130
Coordinator: Mark Robinson	(202) 376-9060
Need for Power/Transmission Lines: Director, Division of Interconnections and Systems Analysis: Bernard Chew	(202) 376-9264
Coordinator: Gene Biggerstaff	(202) 376-9020
Coordinator: Edward Fowlkes	(202) 376-9381
Attorney: Donald Clarke	(202) 357-8497

Alaska Power Authority

Project Manager: Robert Mohn	(907) 277-7641 Ext. 214
Deputy Project Manager - Engineering: David Wozniak	(907) 277-7641 Ext. 215
Deputy Project Manager - Environment: Richard Flemming	(907) 277-7641 Ext. 211
Deputy Project Manager - Permitting: Tom Arminski	(907) 277-7641
Engineering Consultants - Harza/Ebasco: Richard Mesgher	(907) 277-1561
Regulatory Management Consultant - MSI, Inc.: G. R. Hill	(404) 992-6469
Legal Counsel: D. Jane Drennan	(202) 887-0300

**SUSITNA HYDROELECTRIC PROJECT
PRIMARY PERMITS AND APPROVALS THAT APA HAS DEEMED
NECESSARY PRIOR TO START OF CONSTRUCTION**

APPENDIX I

Federal

Hydroelectric License
Section 404 Permit
Section 10 Permit
Endangered Species Act Section 7 Consultation
Right-of-Way Grant & Temporary Use Permits
FLPMA Section 302 Leases, Permits & Easements
Free Use Permit for Gravel
National Pollution Discharge Elimination System Permit
Prevention of Significant Deterioration of Air Quality
Determination of Eligibility for the National Register
Determination of Effect on Sites
Advisory Council Consultation

**Administering
Agency**

FERC
COE
COE
FWS
BLM
BLM
BLM
EPA
EPA
FERC, SHPO &
Advisory Council

Key

ADEC
ADFG
ADNR
ADPDP
BLM
COE
EPA
FERC
FWJ
MSS
SHPO
Alaska Department of Environmental Conservation
Alaska Department of Fish and Game
Alaska Department of Natural Resources
Alaska Division of Policy Development and Planning
Bureau of Land Management
United States Corps of Engineers
Environmental Protection Agency
Federal Energy Regulatory Commission
Fish and Wildlife Service
Matanuska - Susitna Borough
State Historic Preservation Officer

State

NPDES Certification
Certificate of Reasonable Assurance
Alaska Coastal Management Program Certificate of Consistency
Anadromous Fish Protection Permit
Fishways for Obstruction to Fish Passage
Land Use Permits
Material Sales
Water Rights Permit & Certificate of Appropriation
Land Lease
Permit to Construct a Dam
Right-of-Way Permit for an Easement

ADEC
ADEC
DPOF
ADFG
ADFG
ADNR
ADNR
ADNR
ADNR
ADNR
ADNR

Local

Matanuska - Susitna Borough Permits and Reviews

MSS

FOOTNOTES

◊ Licensing process page connector (Level B)
△ On-page connector
◻ Off-page connector
references page number

Provided by Alaska Power Authority

LEGEND

The number at the end represents the number of copies given to completion of the project indicated by the arrow.

The permits, approvals and consultations required for FERC Licensing of the Susitna Project are marked with an *.

The remaining federal and state permits, approvals and consultations described in this Appendix may be necessary prior to construction and operation of the project.

Susitna Hydroelectric Project LIST OF AGENCIES

APPENDIX J

Federal

Department of Agriculture
Chief of the Forest Service
Department of Agriculture
P.O. Box 2417
Washington, D.C. 20013

Regional Director
Forest Service
Box 1628 - Federal Office Building
Juneau, Alaska 99802

Director, Western Area - Electric
Rural Electrification Administration
14th and Independence SW
Washington, D.C. 20254

Soil Conservation Service
2221 E. Northern Lights Blvd.
Suite 129
Anchorage, Alaska 99504

Department of Commerce
Deputy Assistant General for
Environmental Affairs
Department of Commerce
Washington, D.C. 20230

Director, Alaska Region
National Marine Fisheries Service
P.O. Box 1668
Juneau, Alaska 99802

Director
Office of Coastal Zone Management
3300 Whitehaven Street, NW
Washington, D.C. 20235

Department of the Interior
Director
Office of Environmental Project Review
Department of the Interior
Washington, D.C. 20240

Area Director
U.S. Fish and Wildlife Service
1011 East Tudor Road
Anchorage, Alaska 99503

State Director
Bureau of Land Management
701 C Street, Box 13
Anchorage, Alaska 99513

Director
Regional Environmental Review Office
1675 C Street, Room 233
P.O. Box 120
Anchorage, Alaska 99510

Regional Director
National Park Service
540 West Fifth Avenue
Room 202
Anchorage, Alaska 99501

Area Director
Bureau of Indian Affairs
P.O. Box 3-8000
Juneau, Alaska 99802

U.S. Geological Survey
733 W. Fourth Avenue, Suite 400
Anchorage, Alaska 99501

Bureau of Mines
Chief, Alaska Field Operations Center
Washington, D.C. 20241

Regional Director
Bureau of Reclamation
P.O. Box 043, U.S. Court House
550 W. Fort Street
Boise, Idaho 83742

Department of the Army
District Engineer
Corps of Engineers
P.O. Box 7002
Anchorage, Alaska 99510

Department of Energy
Director
Alaska Power Administration
P.O. Box 50
Juneau, Alaska 99802

Department of Health and Human Services
200 Independence Avenue, SW
Washington, D.C. 20201

Department of Housing and Urban Development
451 7th Street SW
Washington, D.C. 20410

Department of Transportation
U.S. Coast Guard
2100 2nd Street, SW
Washington, D.C. 20590

Federal Aviation Administration
800 Independence Avenue, SW
Washington, D.C. 20591

U.S. Environmental Protection Agency
Regional Administrator
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

State

Alaska Department of Environmental Conservation
Pouch O
Juneau, Alaska 99811

Alaska Department of Fish and Game
Support Building
Juneau, Alaska 99801

Alaska Department of Natural Resources
Pouch M
Juneau, Alaska 99801

Alaska Department of Public Safety
450 Whittier Street
Juneau, Alaska 99801

Alaska Public Utilities Commission
1100 Mackay Building
338 Donald Street
Anchorage, Alaska 99802

Alaska State-Federal Coordinator
Office of the Governor
Pouch AD
Juneau, Alaska 99811

Office of the Governor
Division of Policy Development and Planning
Pouch AW
Juneau, Alaska 99811

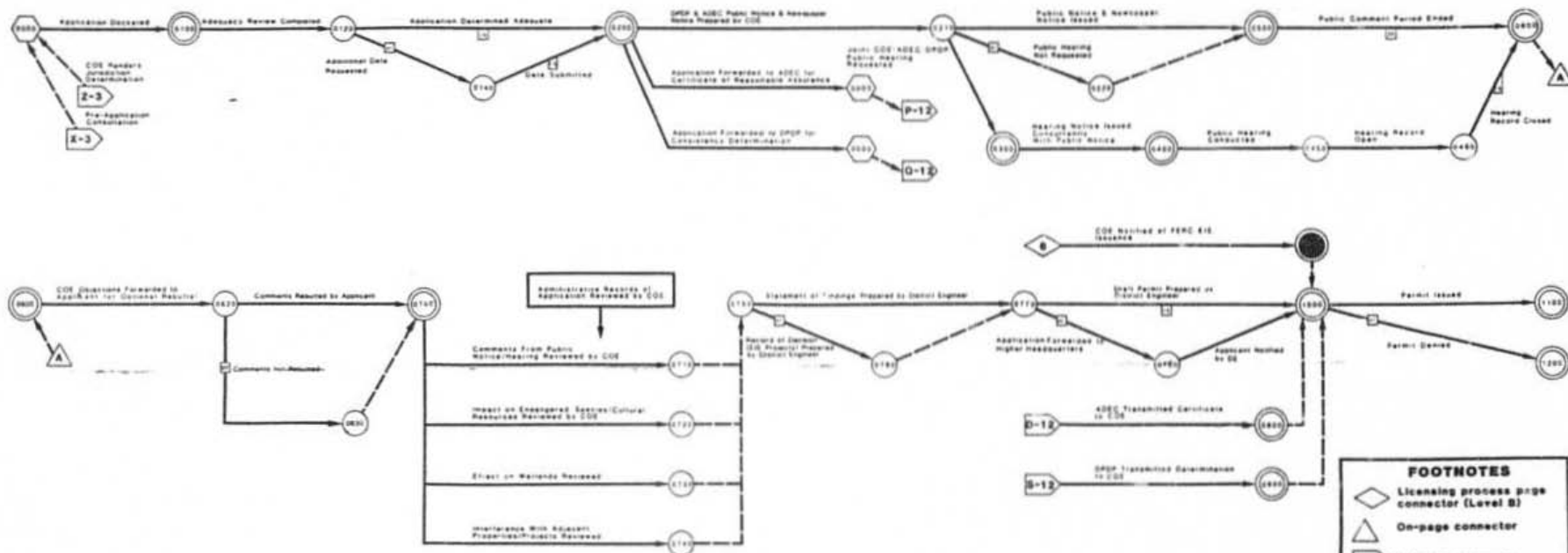
Office of Coastal Management
Office of the Governor, Alaska
Pouch AP
Juneau, Alaska 99811

State Historic Preservation Officer
619 Warehouse Drive, Suite 210
Anchorage, Alaska 99501

Section 404 Permits for the Discharge of Dredged & Fill Materials 33 U.S.C. 1344
Section 10 Permits for Structures in or Affecting Navigable Waters 33 U.S.C. 403

**Susitna Hydroelectric Project
FEDERAL PERMITS**

August 1, 1983

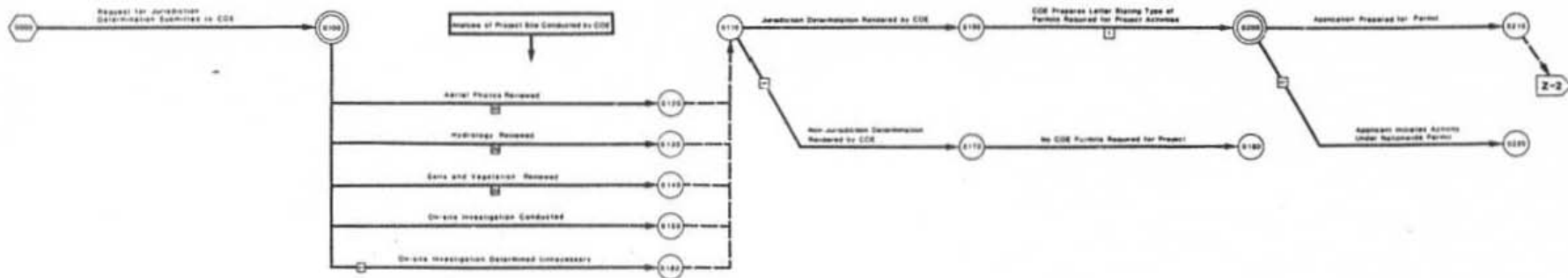


FOOTNOTES	
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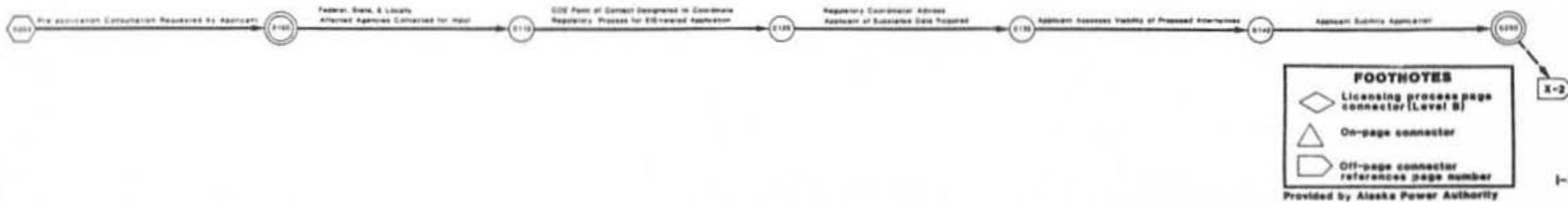
Corps of Engineers:
Pre-Application Jurisdiction Determination

Susitna Hydroelectric Project FEDERAL PERMITS

August 1, 1963



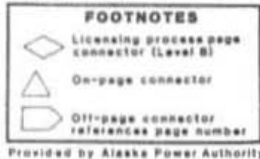
Pre-Application Consultation 33 CFR 325.1



Endangered Species Act (E.S.A) Section 7 Consultation 16 U.S.C. 1539*

FEDERAL PERMITS

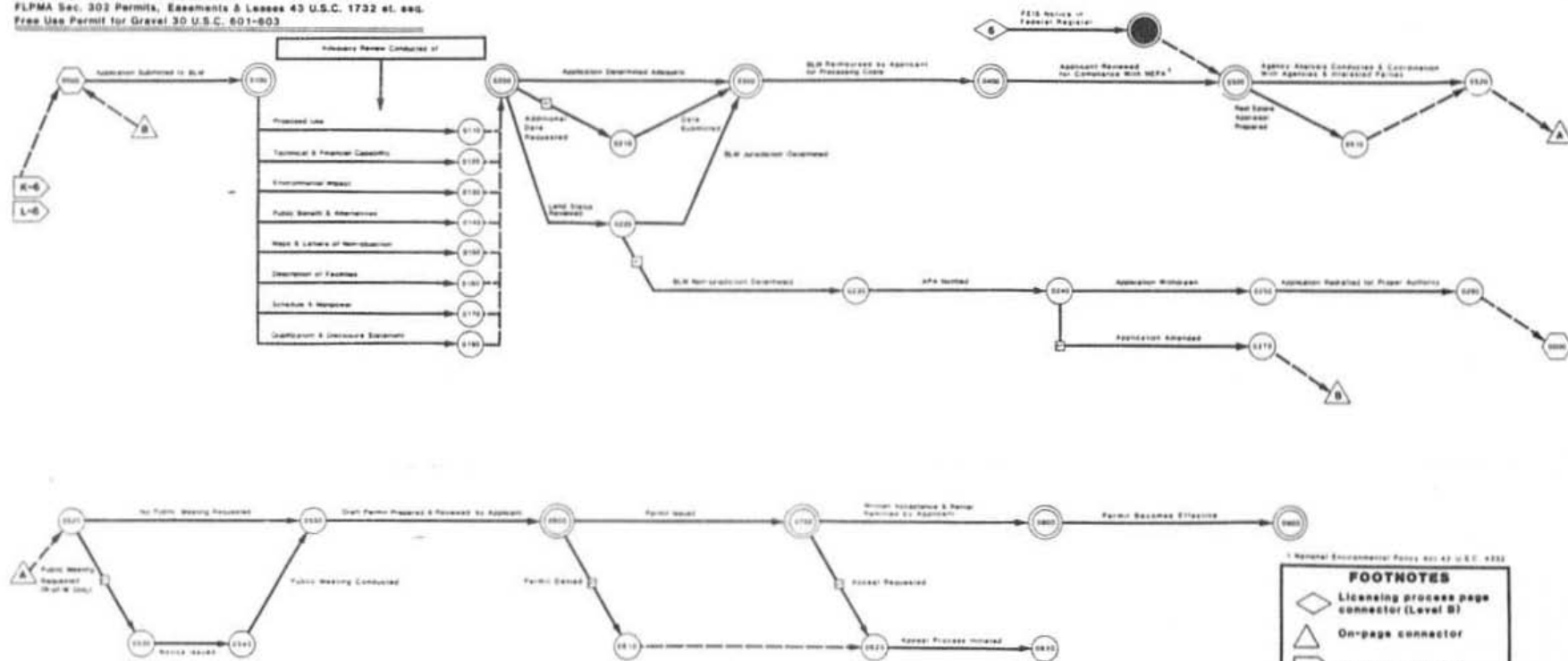
August 1, 1983



Bureau of Land Management
 Grant of Right-of-Way 43 U.S.C. 1761 et. seq.
 Temporary Use Permit 43 U.S.C. 1764
 FLPMA Sec. 302 Permits, Easements & Leases 43 U.S.C. 1732 et. seq.
 Free Use Permit for Gravel 30 U.S.C. 601-603

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1 National Environmental Policy Act 43 U.S.C. 1732

FOOTNOTES

◆ Licensing process page connector (Level B)

▲ On-page connector

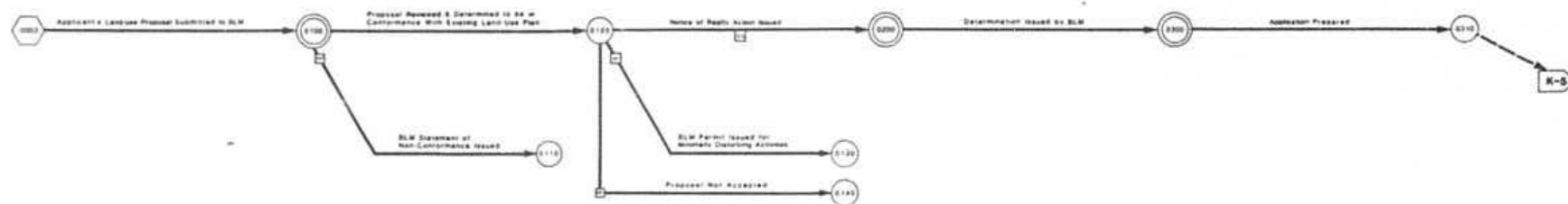
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Bureau of Land Management:
FLPMA Sec. 302 Pre-Application Procedures for Public Initiated
Land-use Proposals 43 U.S.C. 1732 et. seq.

Susitna Hydroelectric Project FEDERAL PERMITS

August 1, 1983



Right-of-Way Grant & Temporary Use Permit
Pre-application Activity 43 U.S.C. 1761 et. seq.



FOOTNOTES

- ◊ Licensing process page connector (Level 8)
- △ On-page connector
- ◻ Off-page connector references page number

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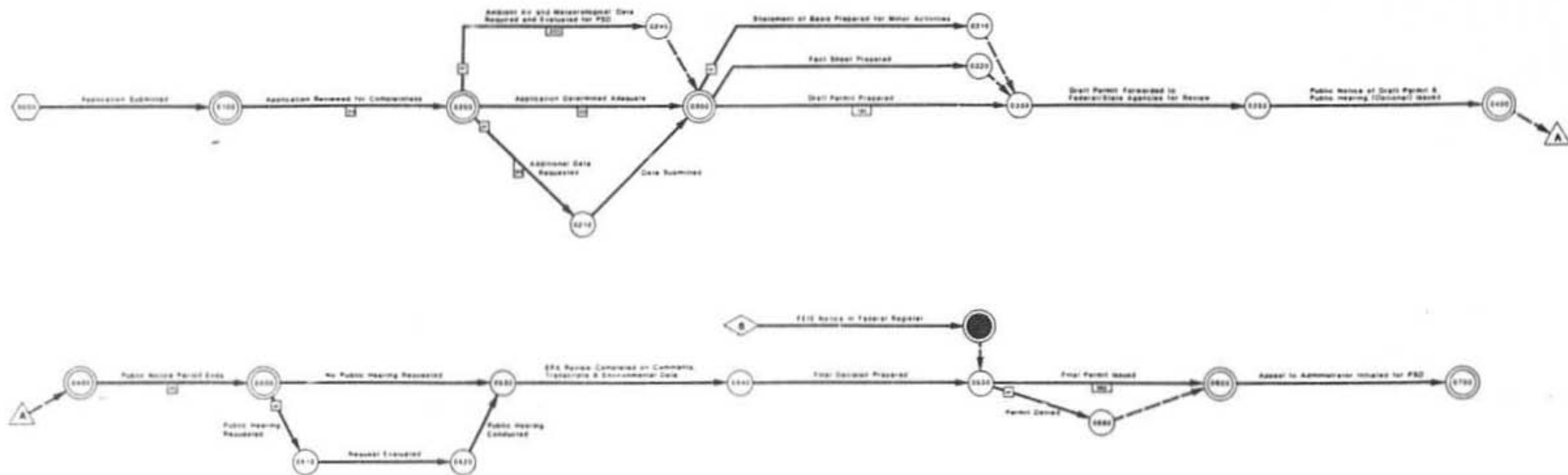
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Susitna Hydroelectric Project FEDERAL PERMITS

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1. ADEE will assume PSD Program in 11/1/83

FOOTNOTES

◇ Licensing process page connector (Level 8)

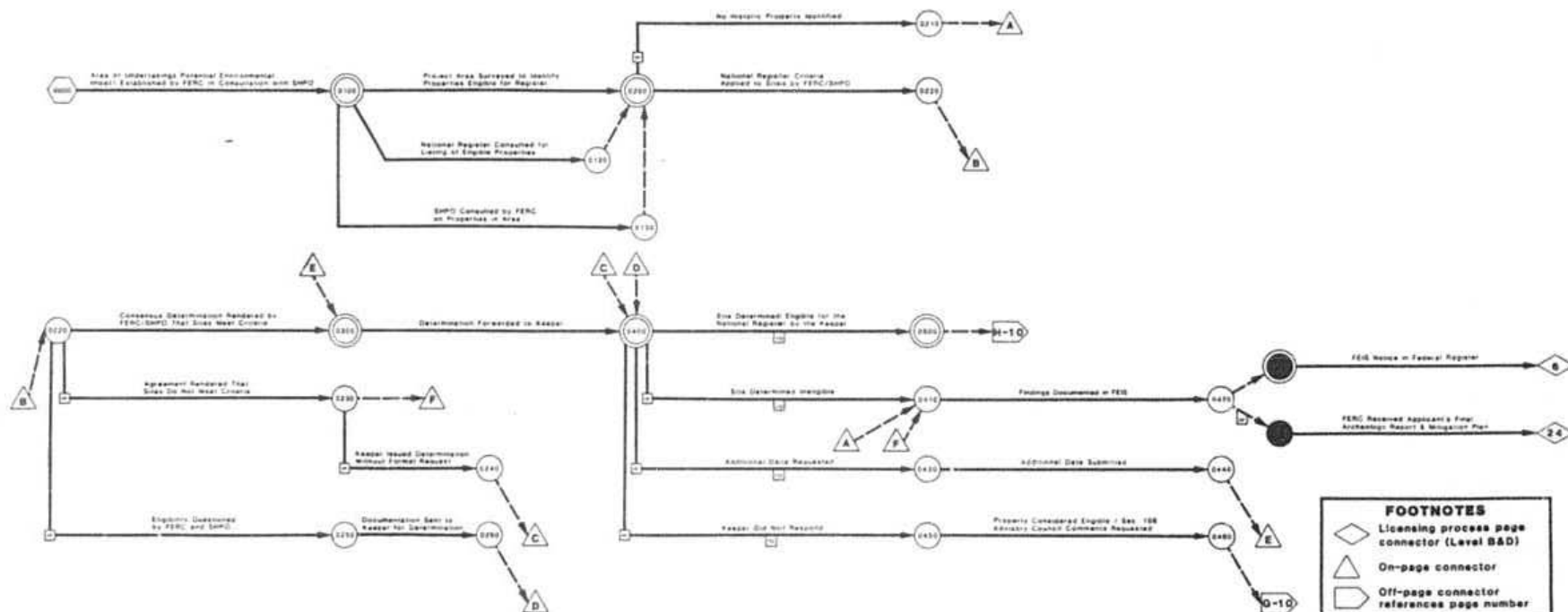
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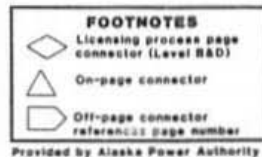
Provided by Alaska Power Authority

Susitna Hydroelectric Project FEDERAL PERMITS

August 1, 1983

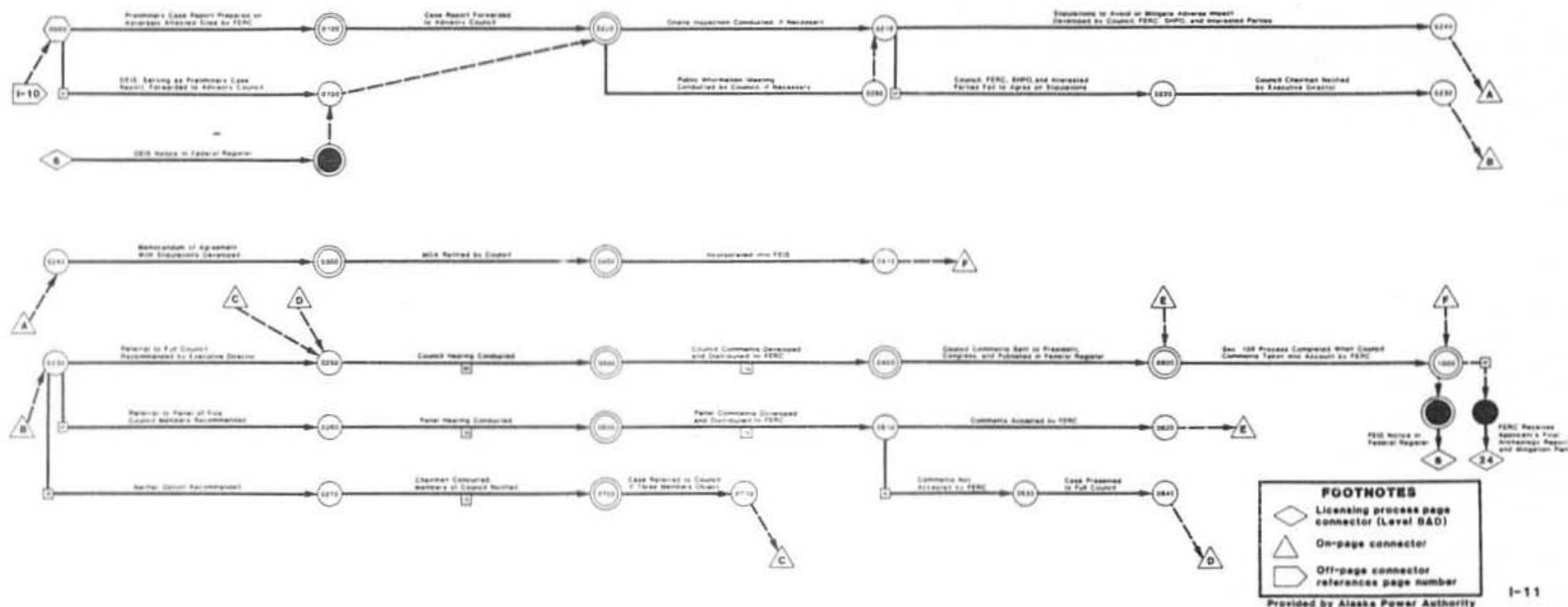


August 1, 1983

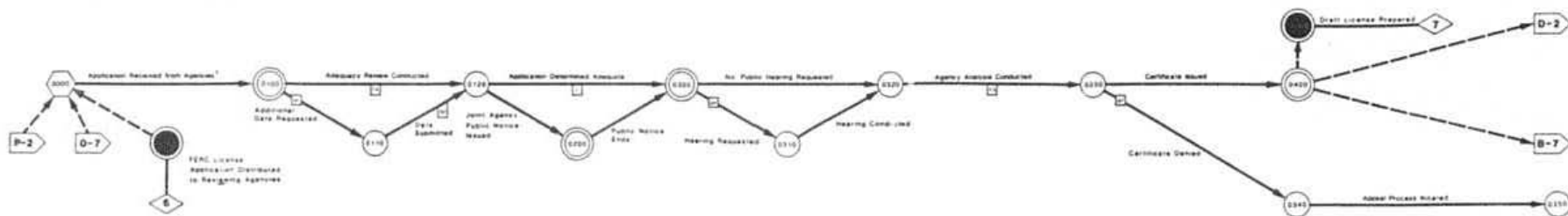


Susitna Hydroelectric Project FEDERAL PERMITS

August 1, 1983

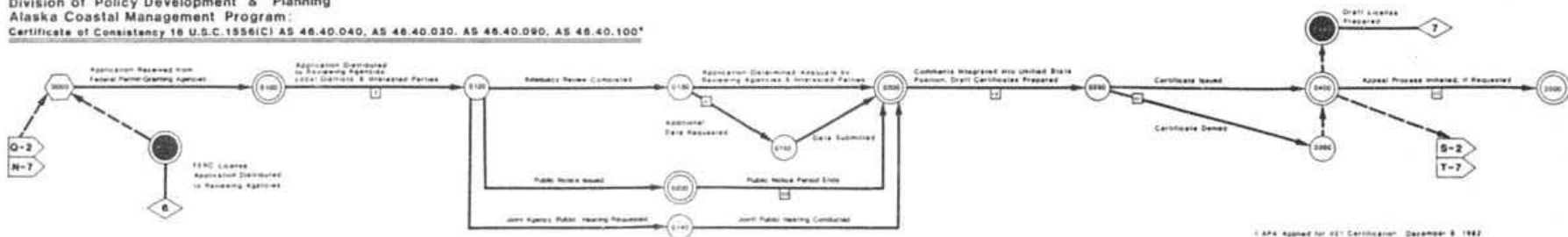


August 1, 1963



Division of Policy Development & Planning
Alaska Coastal Management Program:

Certificate of Consistency 16 U.S.C.1556(C) AS 46.40.040, AS 46.40.030, AS 46.40.090, AS 46.40.100*



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FOOTNOTES

-  Licensing process page connector (Level B)
-  On-page connector
-  Off-page connector
references page number

Alaska Department of Fish & Game:
 Permit to Construct Facilities Providing for
 the Efficient Passage of Fish AS 16.05.640
 Permit to Conduct Activities in or Affecting
 Anadromous Fish Streams AS 16.05.670

Susitna Hydro-electric Project STATE PERMITS

August 1, 1983



FOOTNOTES

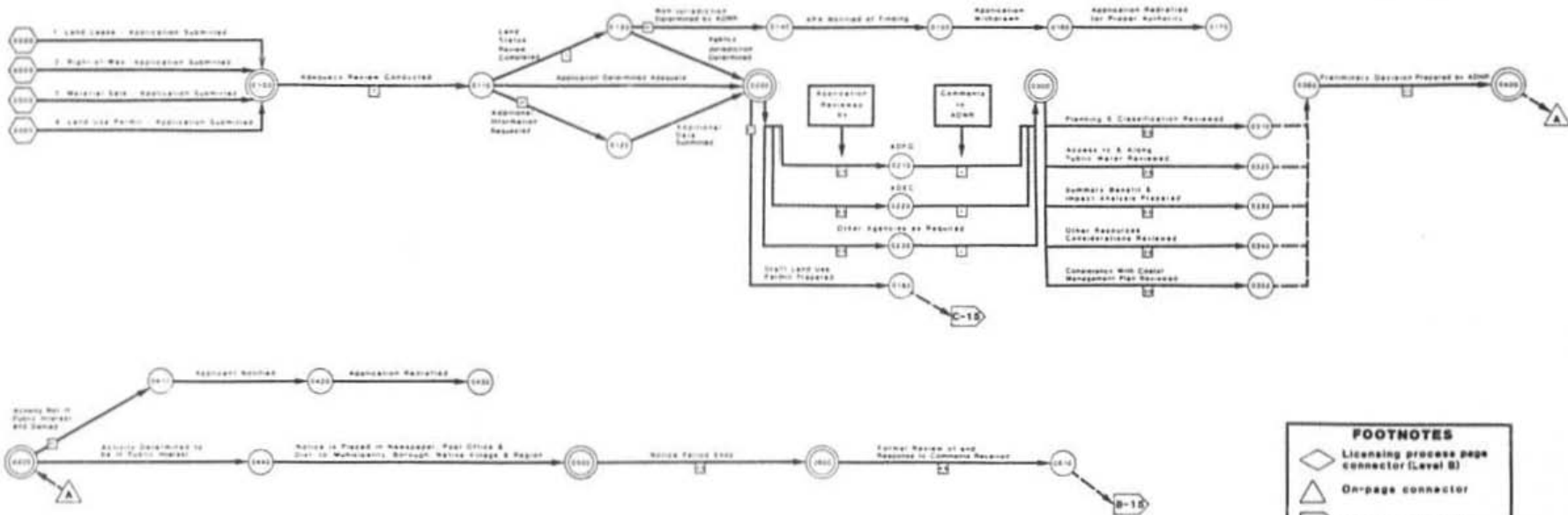
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- Off-page connector references page number

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Land-Lease AS 38.05.070-AS 38.05.105 AS 38.05.315

STATE PERMITS

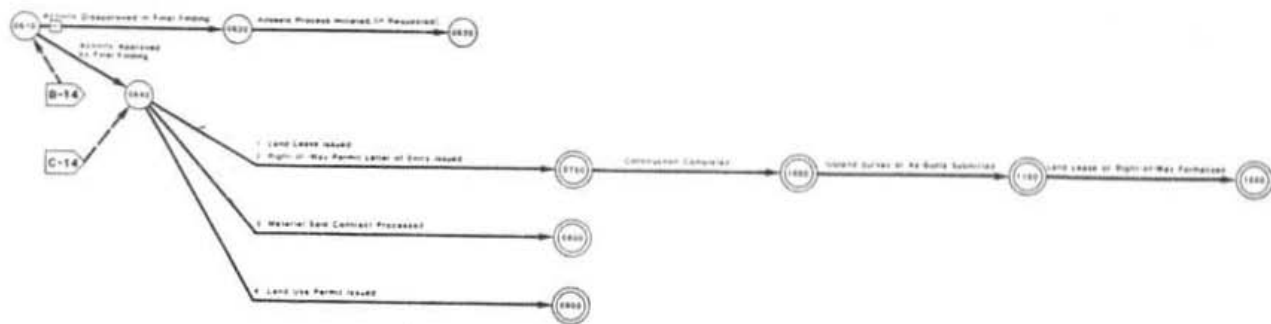
August 1, 1983



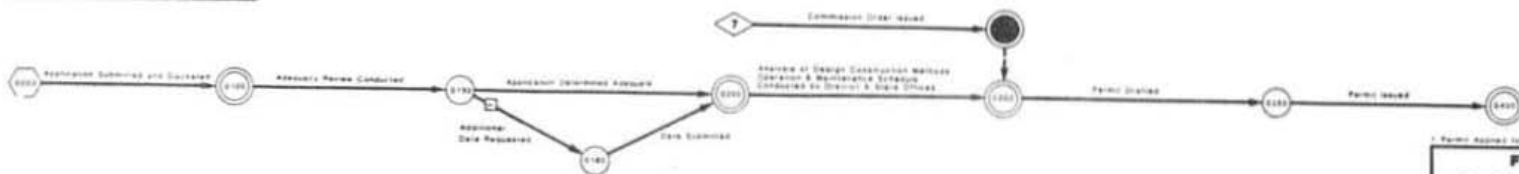
FOOTNOTES	
	Licensing process page connector (Level 8)
	On-page connector
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Susitna Hydro-electric Project STATE PERMITS

August 1, 1983



Permit to Construct a Dam A.S. 48.15



Permit Approved for August 31, 1983

FOOTNOTES

- ◊ Licensing process page connector (Level B)
- △ On-page connector
- Off-page connector references page number

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Susitna Hydroelectric Project

STATE PERMITS

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1. Form 1 Application Submitted to AOWB August 23, 1991

FOOTNOTES

- | | |
|---|--|
|  | Licensing process page connector (Level 2) |
|  | On-page connector |
|  | Off-page connector
references page number |

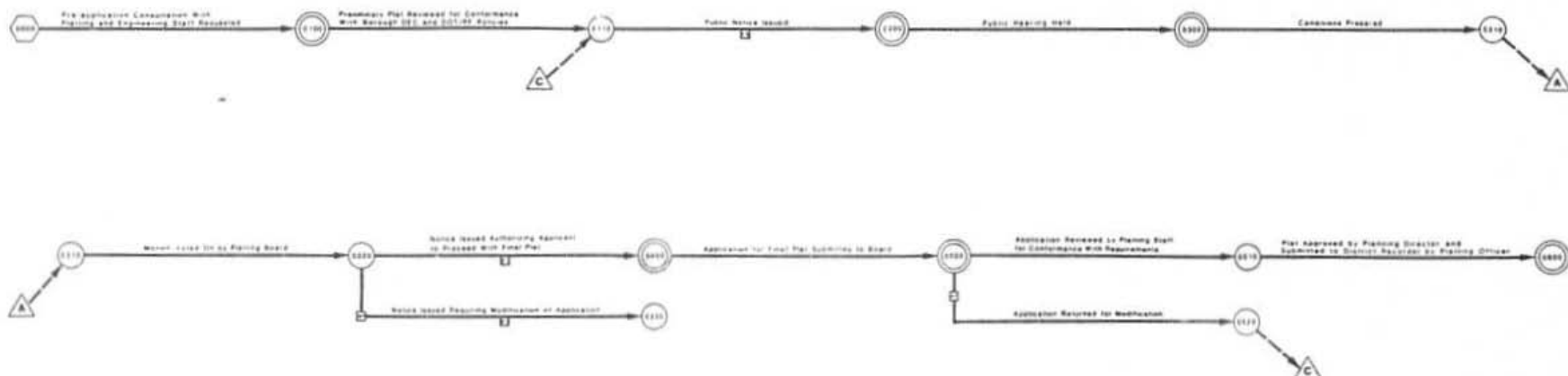
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Matanuska-Susitna Borough

Permits, Variances, Waivers AS 29.33.015 MSB 16.15.010-.01a

Susitna Hydroelectric Project
LOCAL PERMITS

August 1, 1963



FOOTNOTES

◊ Licensing process page connector (Level B)

△ On-page connector

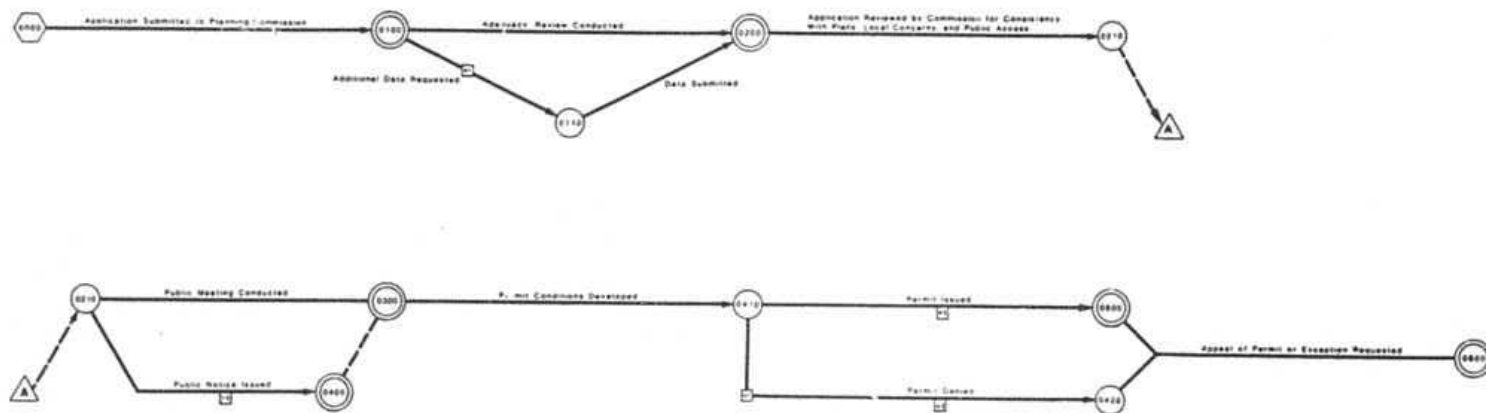
□ Off-page connector reference page number

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Matanuska-Susitna Borough
Talkeetna Mountain Special Use District
Permits for Enterprise Activities MSB 17.24.140
Exceptions to Chapter Provisions
for Public Facilities MSB 17.24.170

Susitna Hydroelectric Project LOCAL PERMITS

August 1, 1993



FOOTNOTES

◊ Licensing process page connector (Level 2)

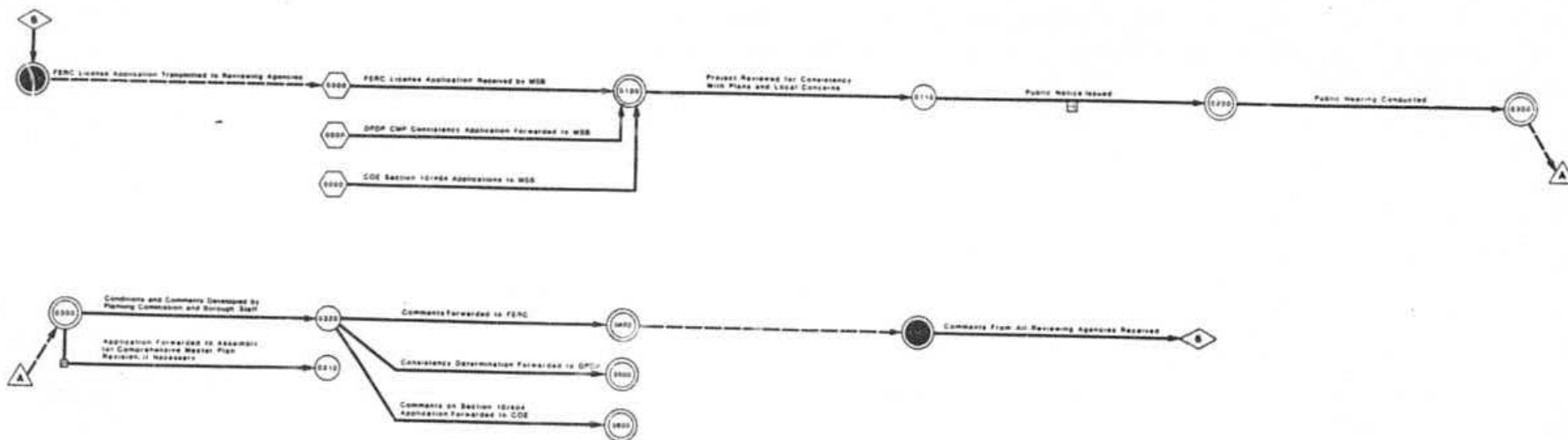
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Susitna Hydroelectric Project LOCAL PERMITS

August 1, 1983



FOOTNOTES

- ◊ Licensing process page connector (Level B)
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- ◻ Off-page connector references page number

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