file copy

INTERNAL MANAGEMENT DOCUMENT

Monn

DECEMBER 1, 1982

SUSITNA Project Status Report

PRELIMINARY DRAFT

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. The 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 Management Team to coordinate the processing of the license application. The Project Management Team is the Commission's primary source of information on the progress of the Susitna Hydroelectric Project and 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) 376-9233. An explanation of the logic networks can be found in the Appendix.

Project Management

Susitna Hydroelectric Project

PROJECT MANAGER SUMMARY

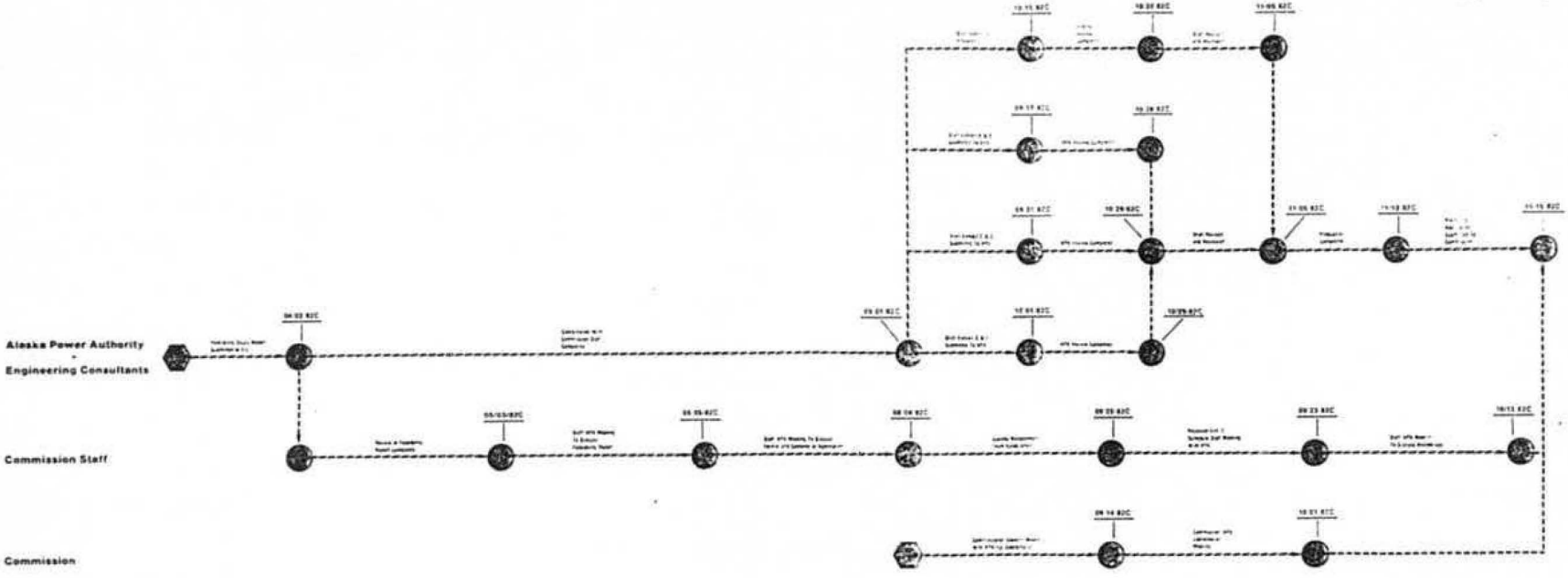
On November 5, copies of Exhibits A, B, C, and F of the Susitna pre-filing were received at the Commission. Reference materials arrived at the same time. Argonne and Oakridge National Laboratories (Labs) received copies of the same exhibits and reference materials on November 8. On November 15, the remaining portions of the application, Exhibits D, E, and G were received by the Commission and the Labs. Review of the pre-filing is proceeding on schedule. A library of reference materials for the project has been established.

The Alaska Power Authority (APA) is conducting an application workshop in Anchorage from November 29 through December 3. At that workshop, APA will solicit preliminary comments on the application from Federal, State and local resource agencies. In early December, this issue of the Susitna Project Status Report will be sent to the agencies by the Commission. Comments will be solicited from the agencies on their interaction with the Commission during the license processing.

This issue of the Susitna Project Status Report has been expanded to include a "Level D" of the licensing schedule. The schedule has been revised to show that the Commission would hold an early hearing, if needed, to assess the need for project power.

Susitna Hydroelectric Project
ACTIONS PRIOR TO PRE-FILING

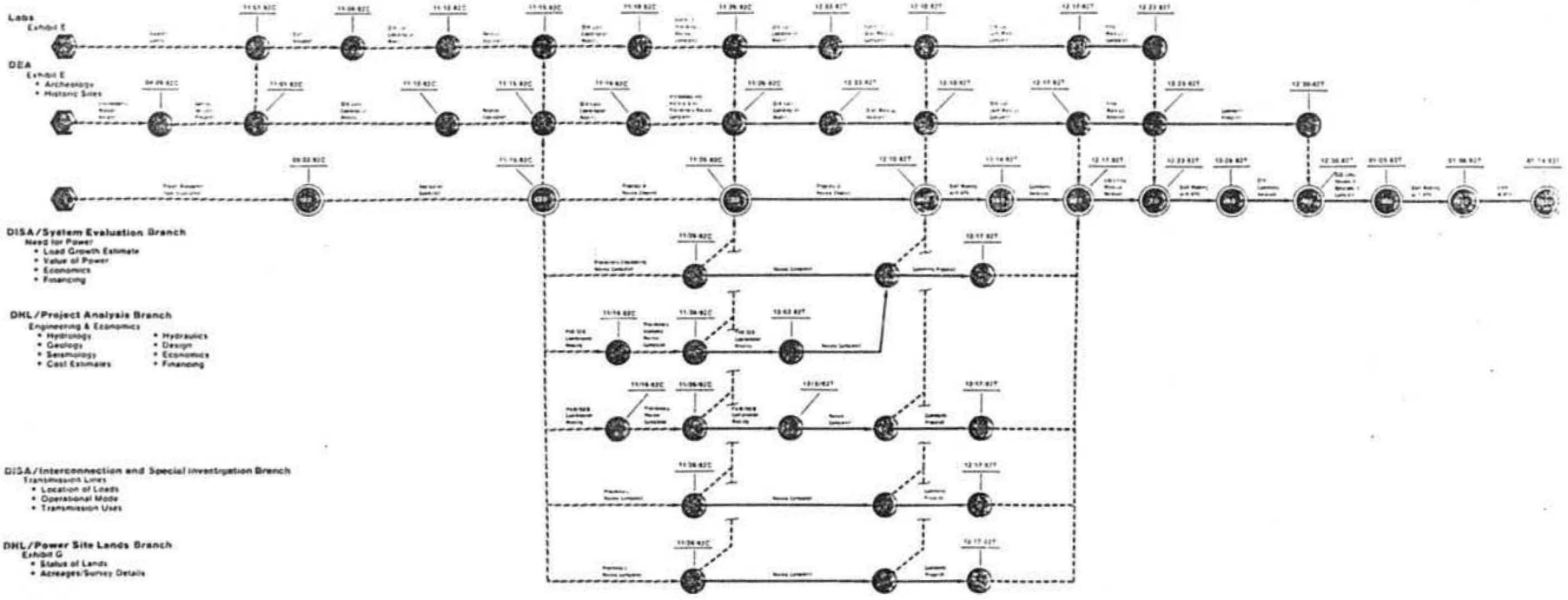
December 1, 1982



Internal Management Document

Susitna Hydroelectric Project
PRE-FILING REVIEW SCHEDULE

December 1, 1982

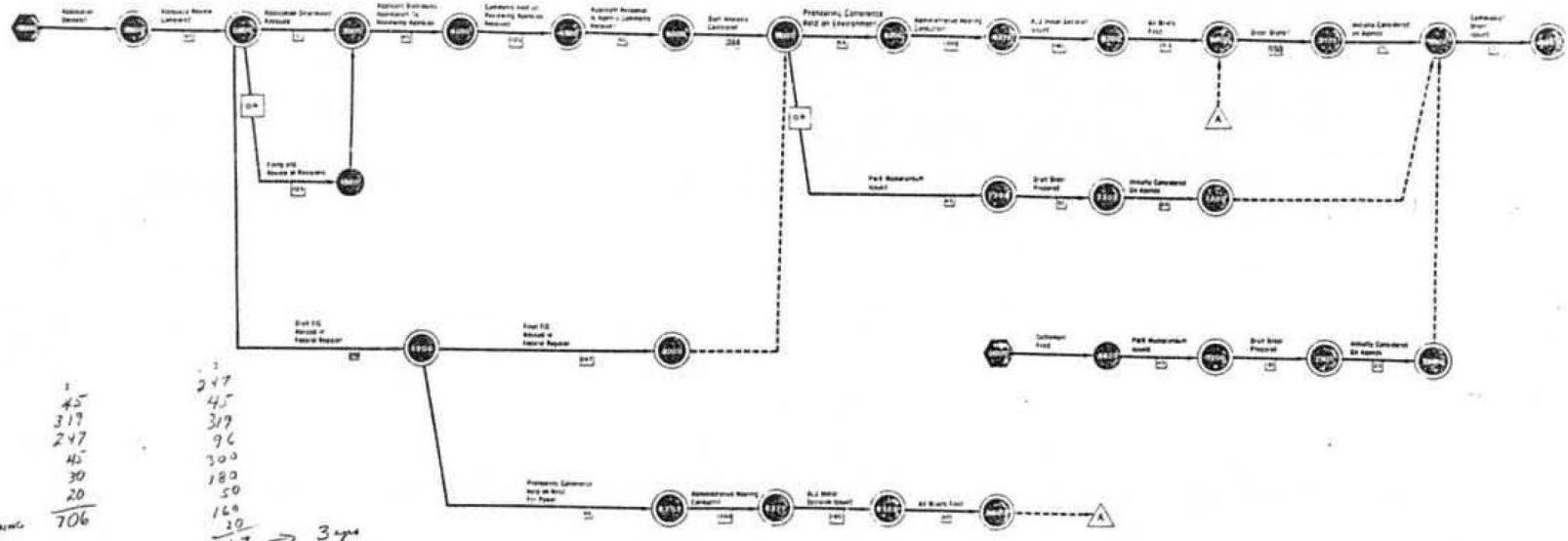


Internal Management Document

Susitna Hydroelectric Project
LICENSING SCHEDULE

SUMMARY OF MAJOR MILESTONES

Level A
December 1, 1982



1	247
45	45
319	319
247	96
45	300
30	180
20	50
	160
	20
w/o hearing 706	1117 → 3 yrs

LEGEND

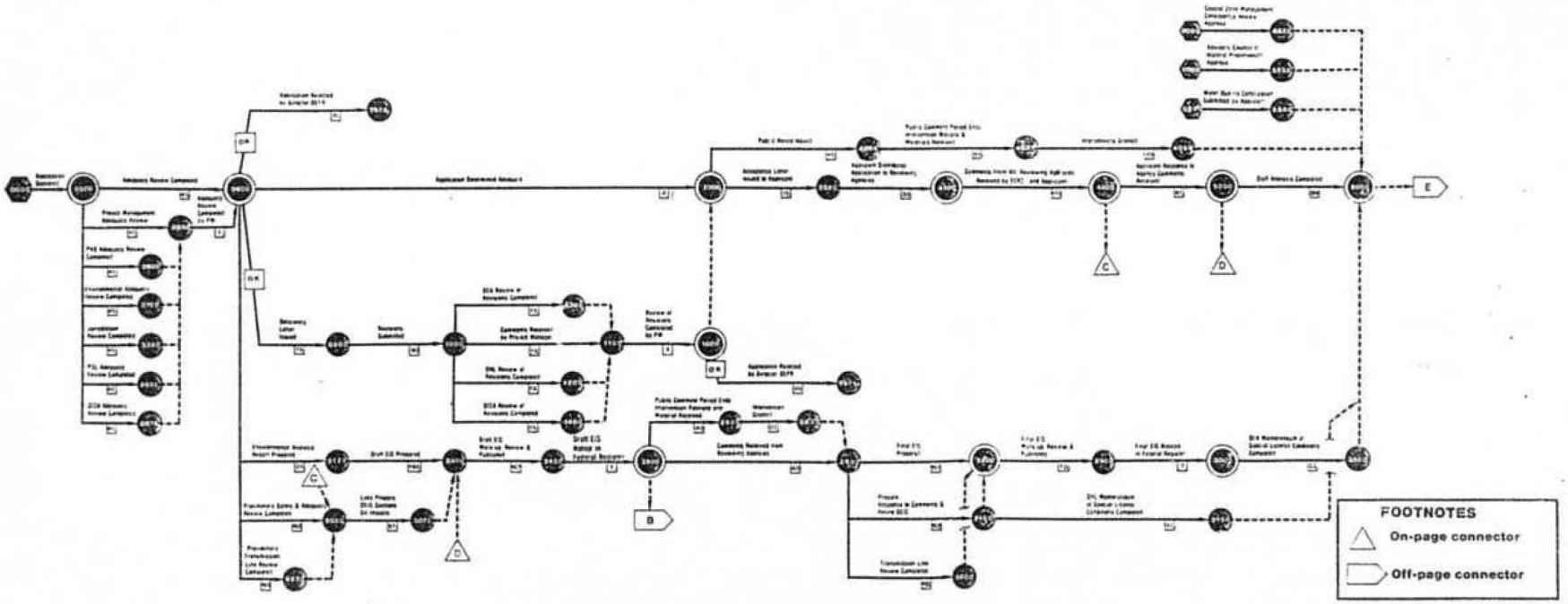
The number in the box represents the number of calendar days required for completion of the action indicated by the arrow.

4.

Susitna Hydroelectric Project
LICENSING SCHEDULE

LICENSE PROCESS

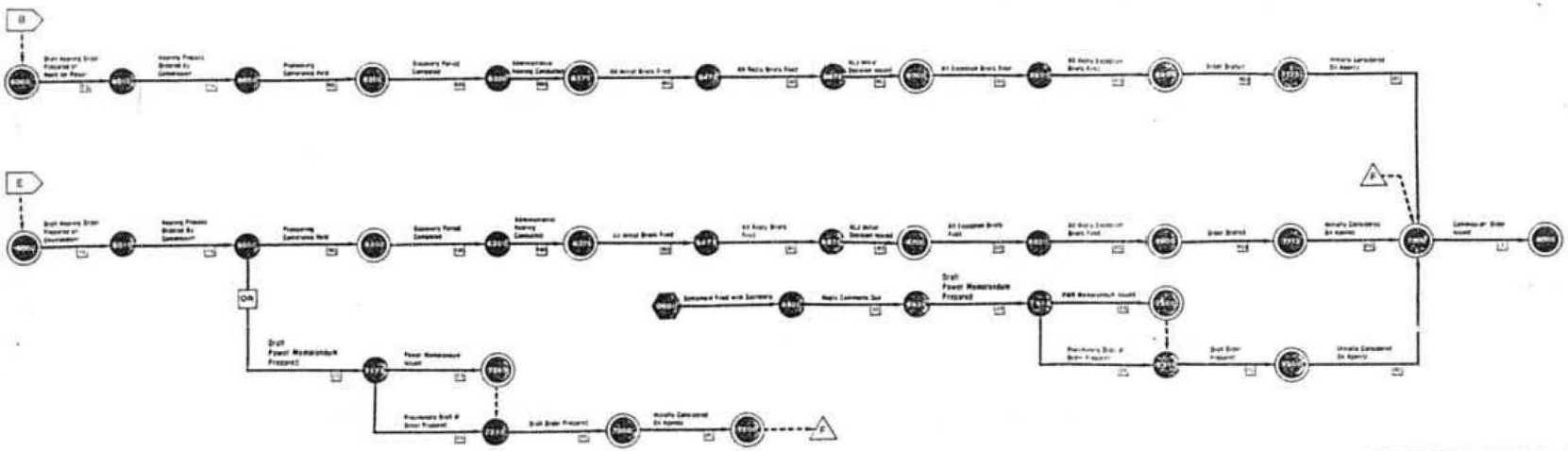
Level B
December 1, 1982



HEARING PROCESS

Susitna Hydroelectric Project
LICENSING SCHEDULE

Level B
December 1, 1982



FOOTNOTES
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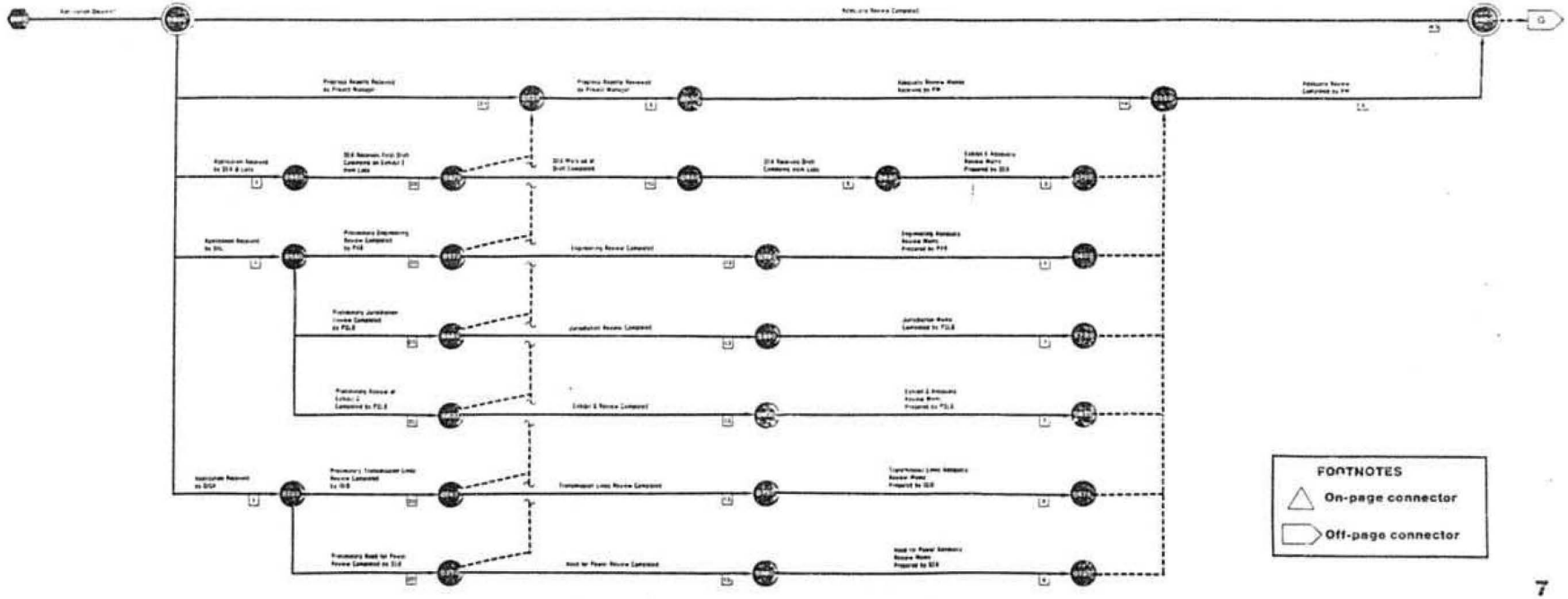
Susitna Hydroelectric Project
LICENSING SCHEDULE

APPLICATION REVIEW

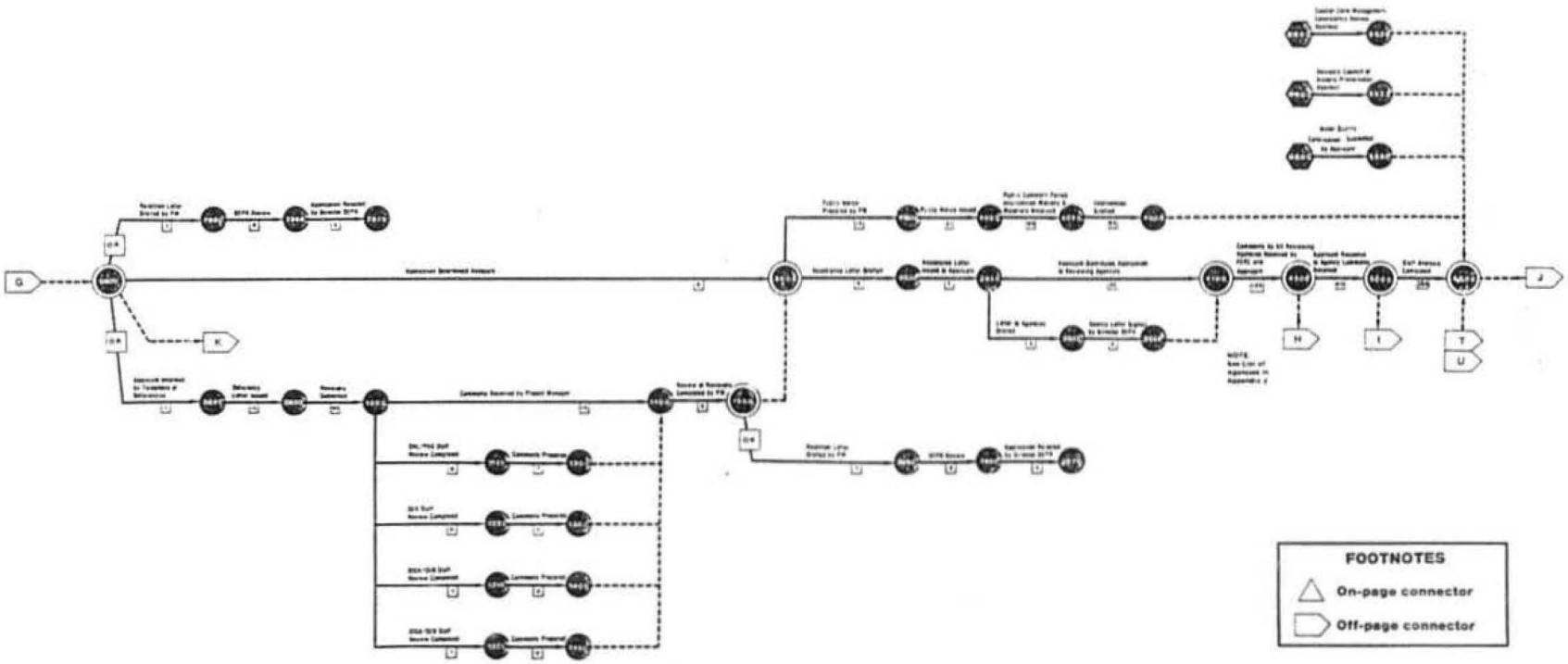
Level C
December 1, 1982



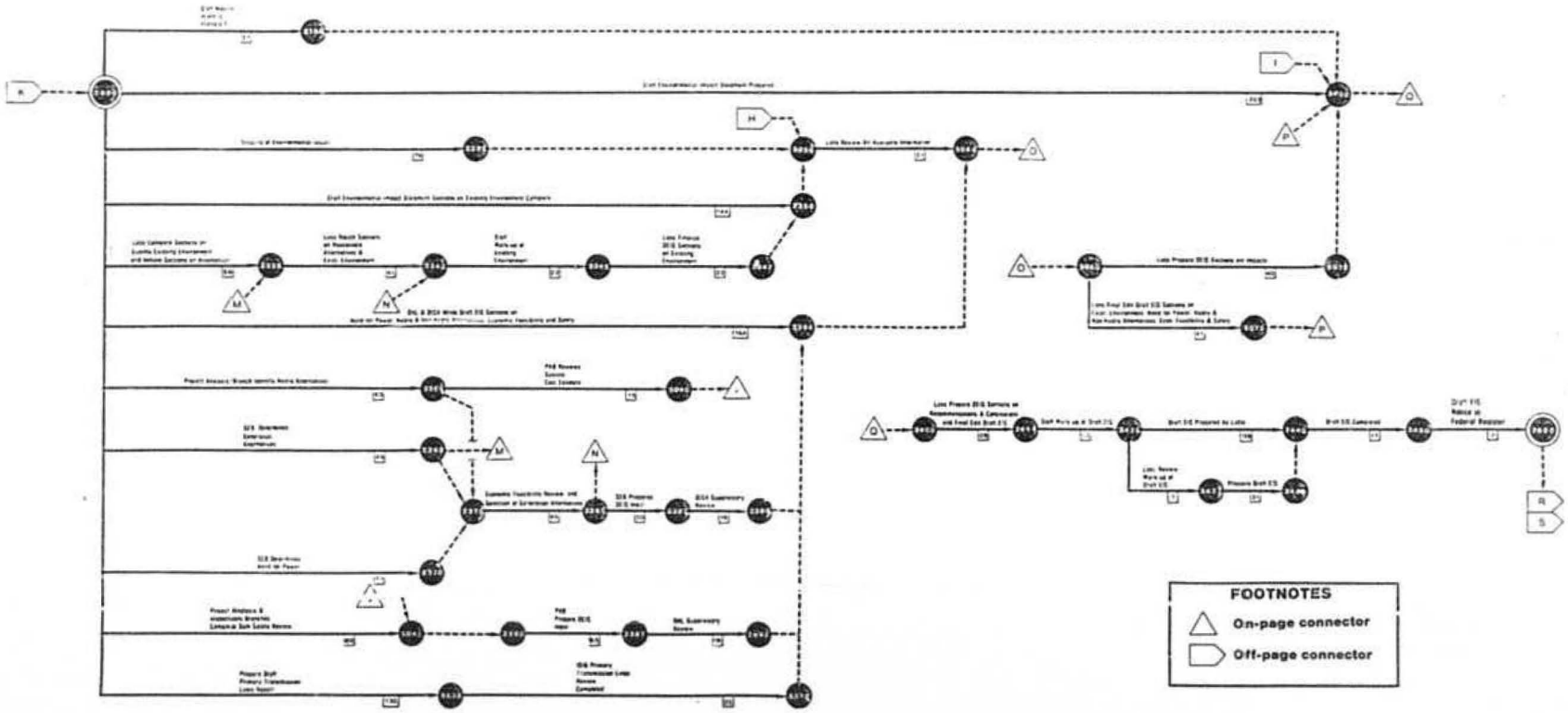
APPLICATION REVISIONS &
AGENCY COMMENT PERIOD

Susitna Hydroelectric Project
LICENSING SCHEDULE

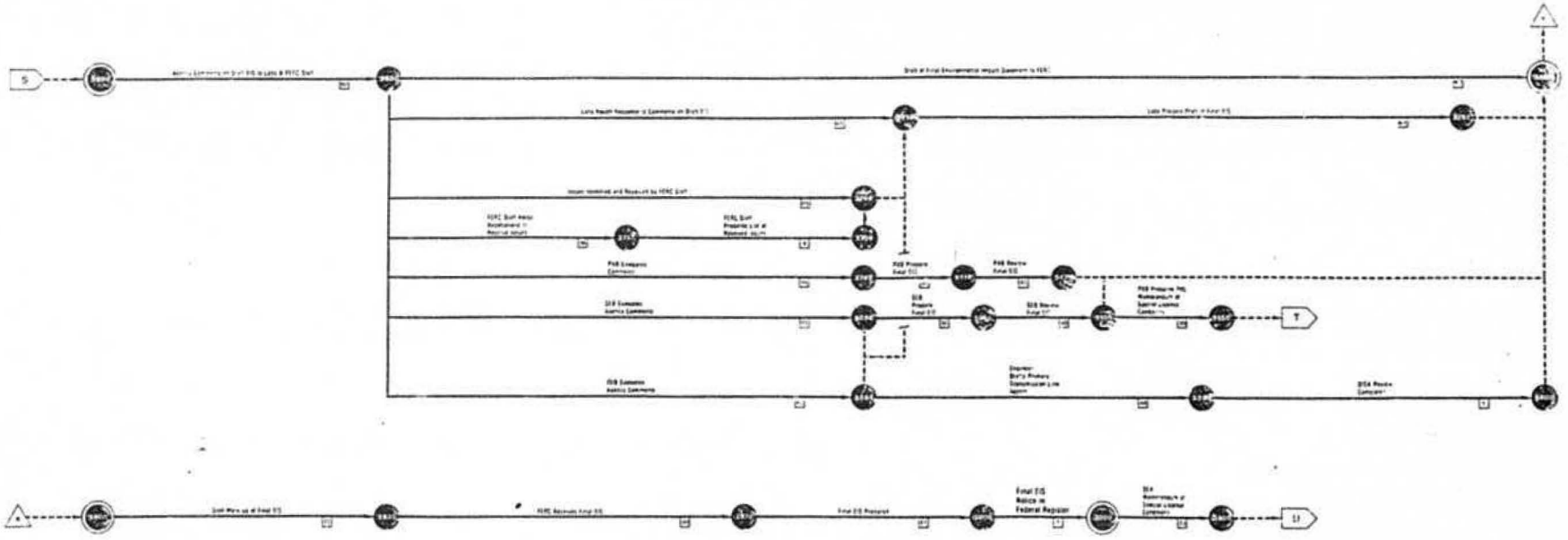
Level C
December 1, 1982



Susitna Hydroelectric Project
LICENSING SCHEDULE



Susitna Hydroelectric Project
LICENSING SCHEDULE



FOOTNOTES
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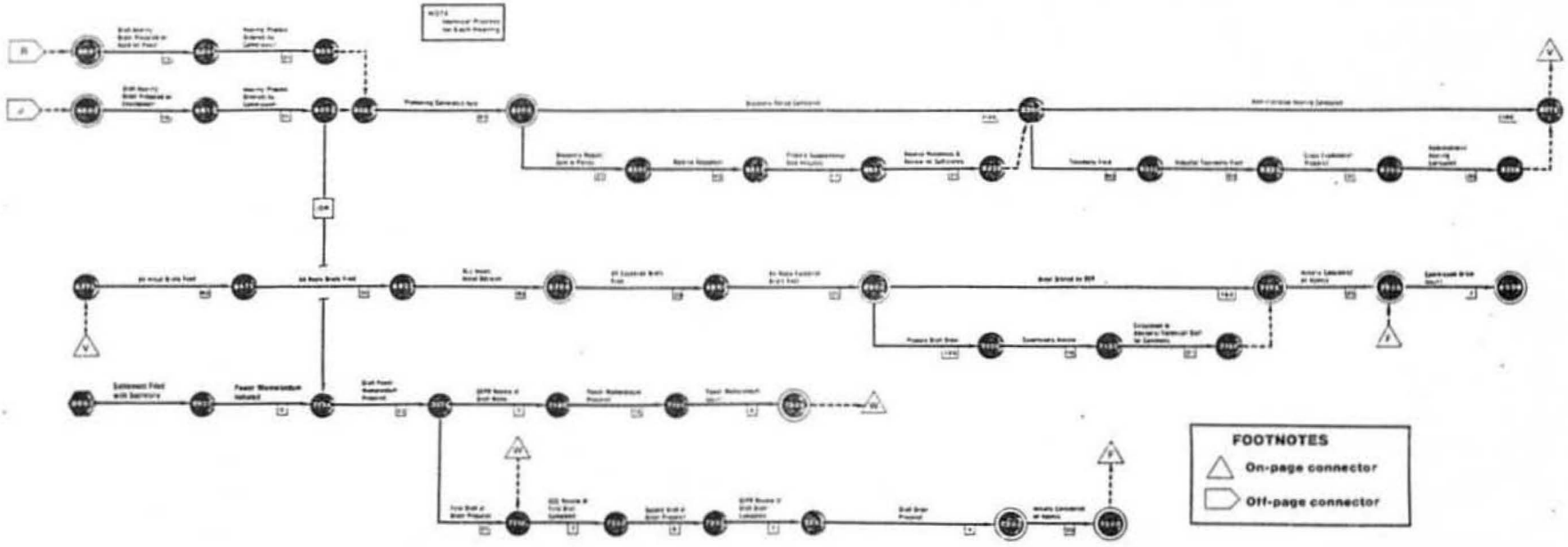
HEARING PROCESS

Susitna Hydroelectric Project
LICENSING SCHEDULE

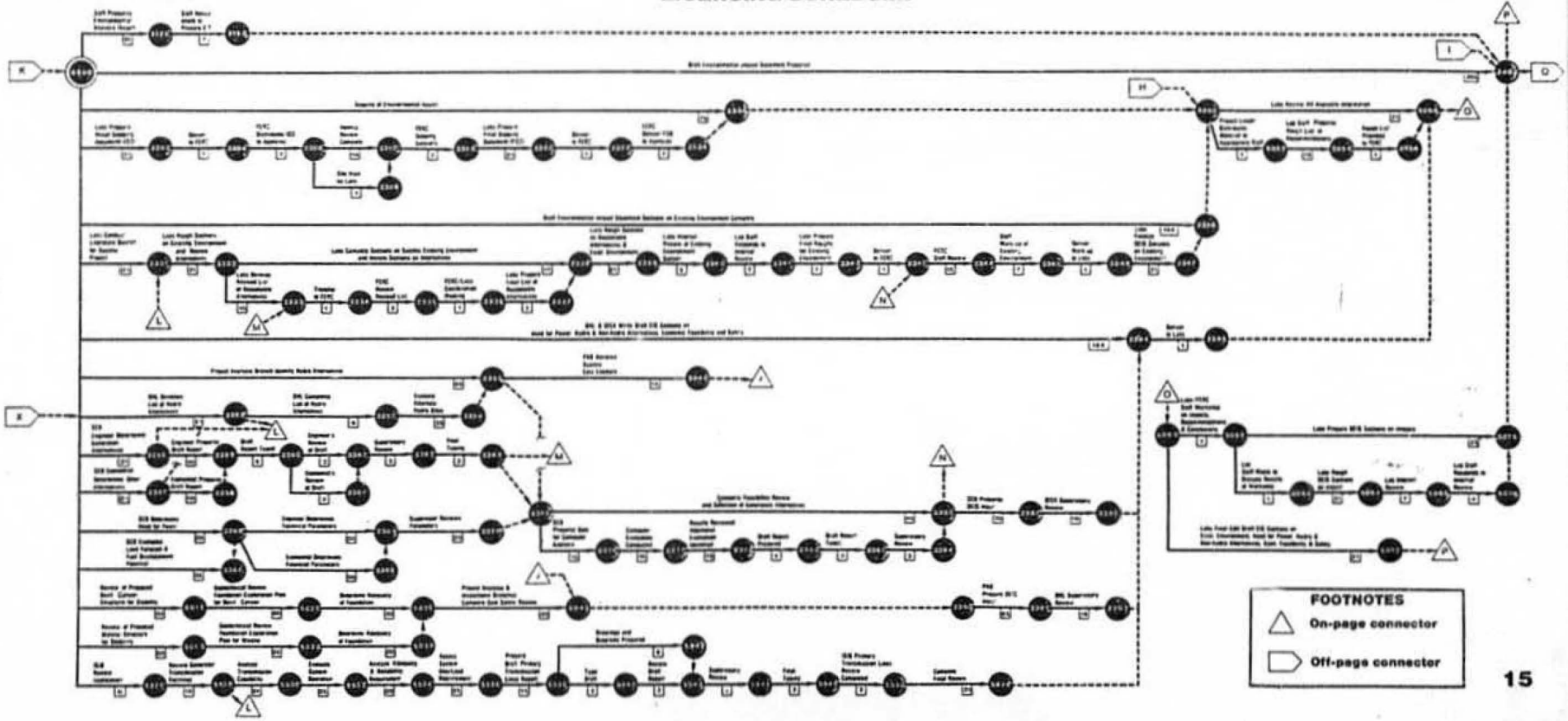
Level C
December 1, 1982



DRAFT ENVIRONMENTAL IMPACT STATEMENT PREPARED

Susitna Hydroelectric Project
LICENSING SCHEDULE

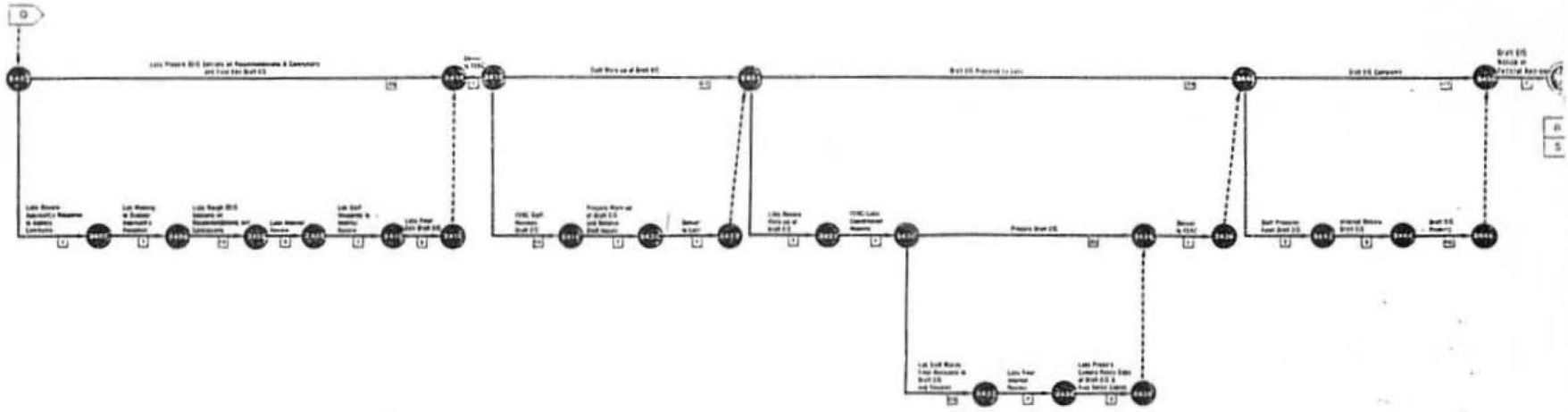
Level D
December 1, 1982



DRAFT ENVIRONMENTAL IMPACT
STATEMENT ISSUED

Susitna Hydroelectric Project
LICENSING SCHEDULE

Level D
December 1, 1982



FOOTNOTES

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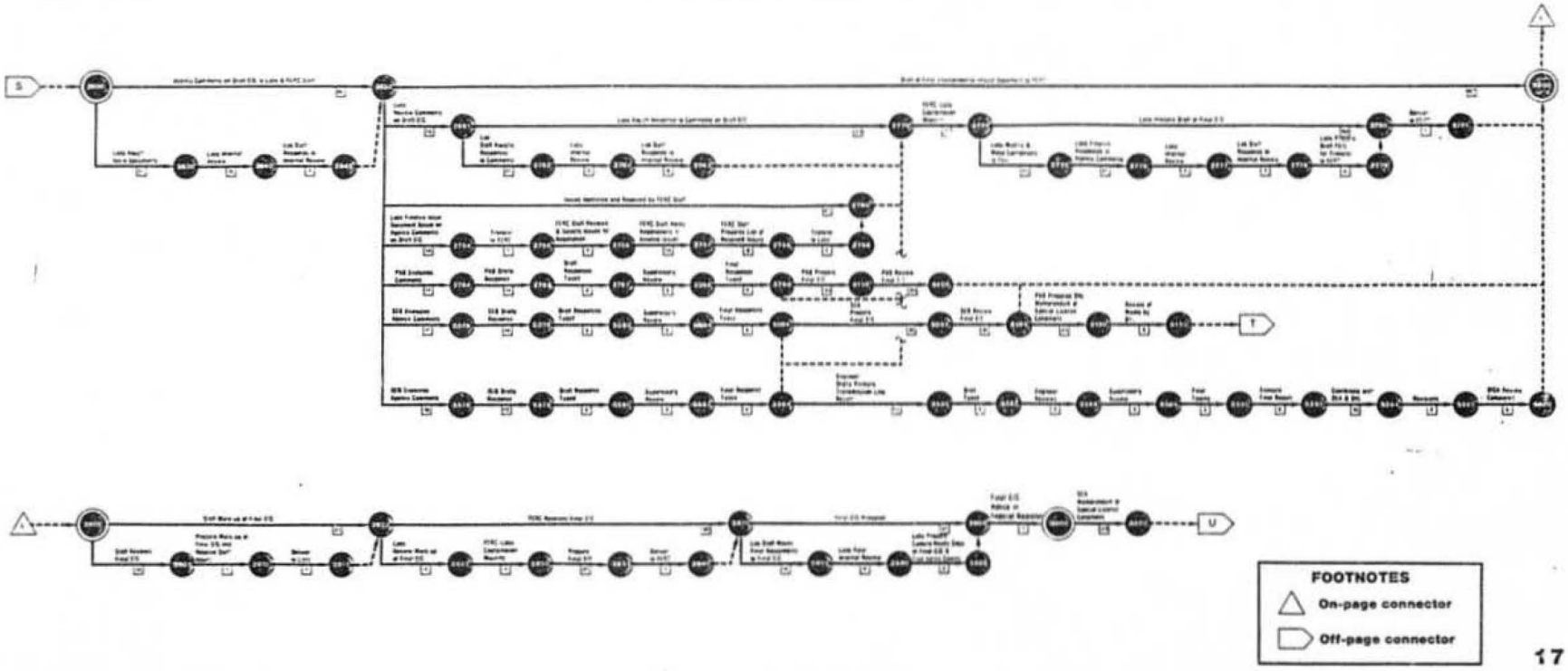
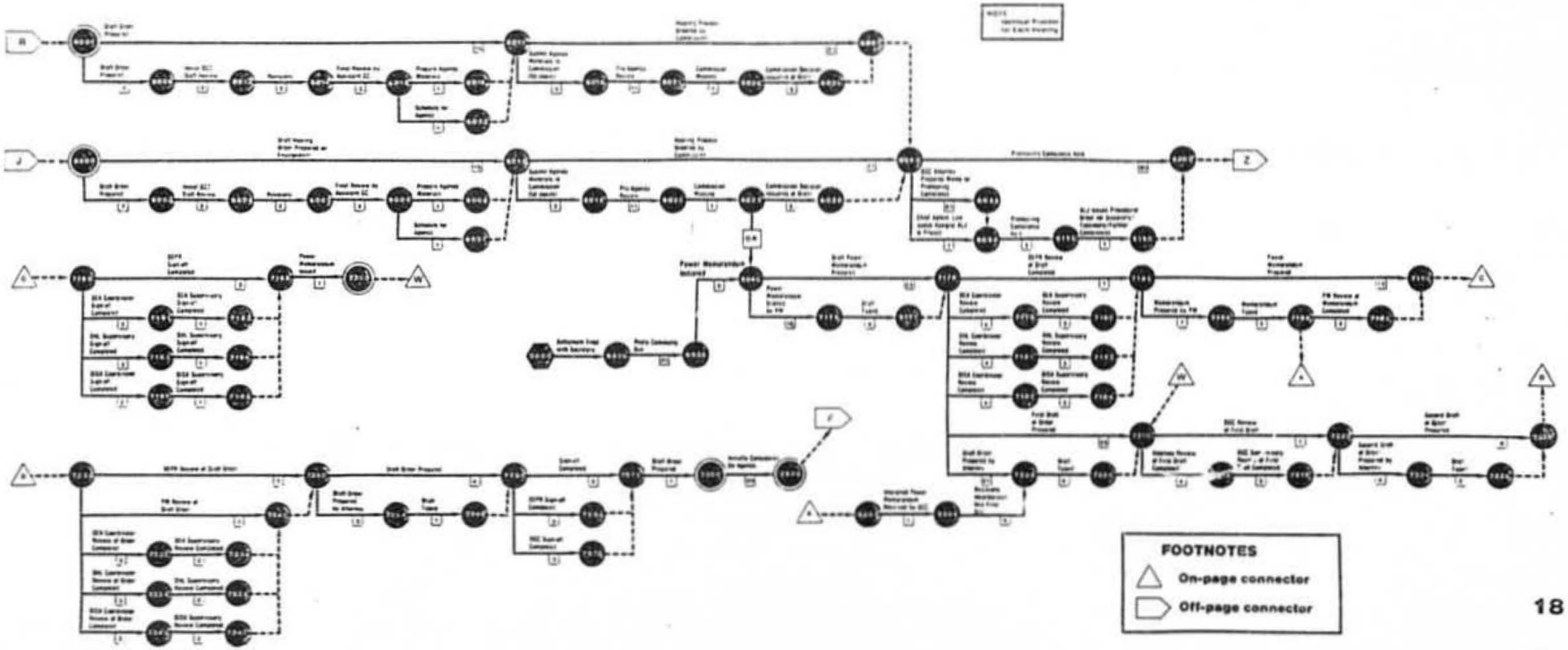
Susitna Hydroelectric Project
LICENSING SCHEDULE



PREHEARING CONFERENCE &
POWER MEMORANDUM

Susitna Hydroelectric Project
LICENSING SCHEDULE

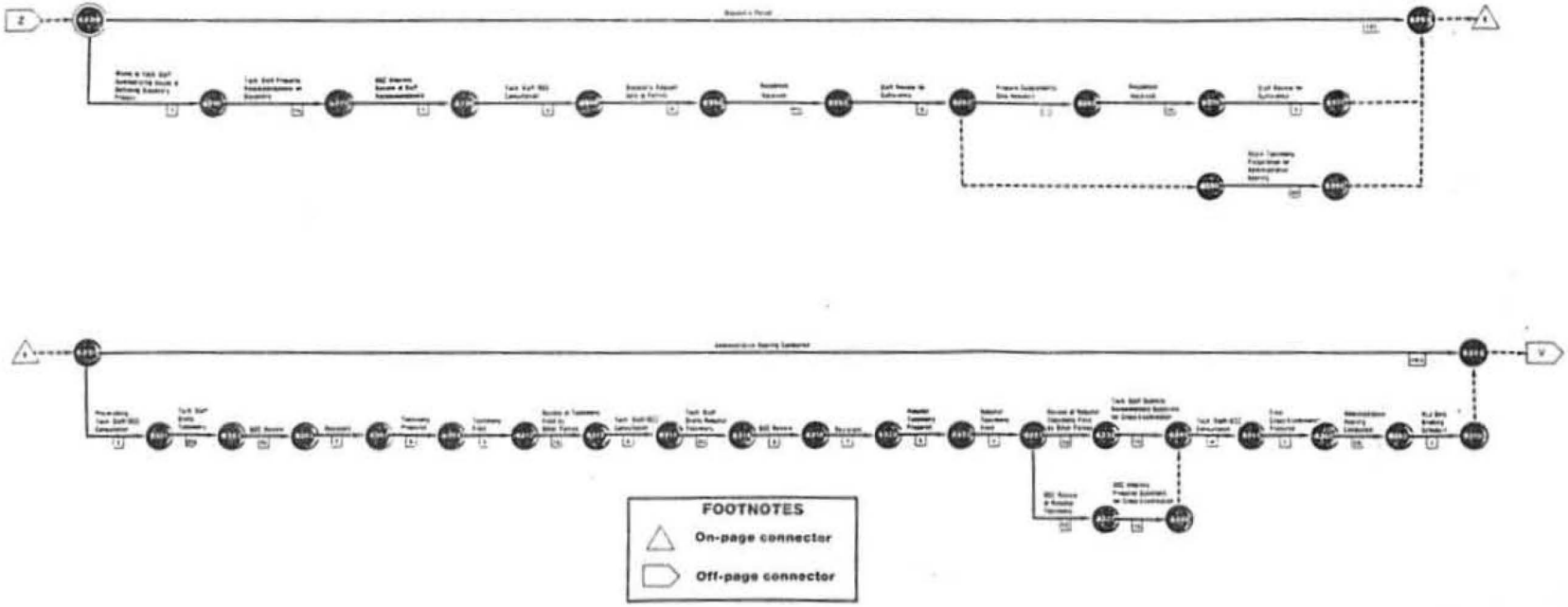
Level D
December 1, 1982



DISCOVERY PERIOD &
ADMINISTRATIVE HEARING

Susitna Hydroelectric Project
LICENSING SCHEDULE

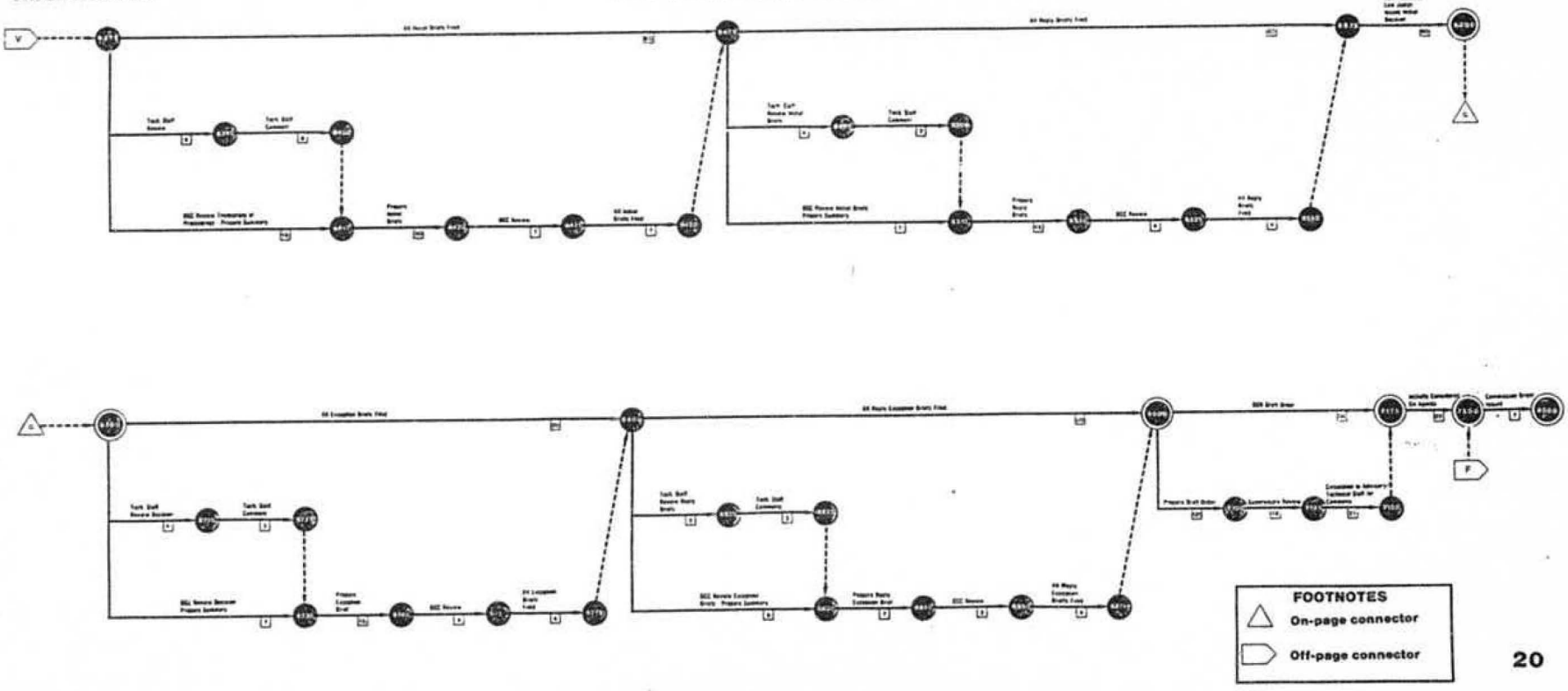
Level D
December 1, 1982



BRIEFING SCHEDULE &
ORDER ISSUANCE

Susitna Hydroelectric Project
LICENSING SCHEDULE

Level D
December 1, 1982



FOOTNOTES

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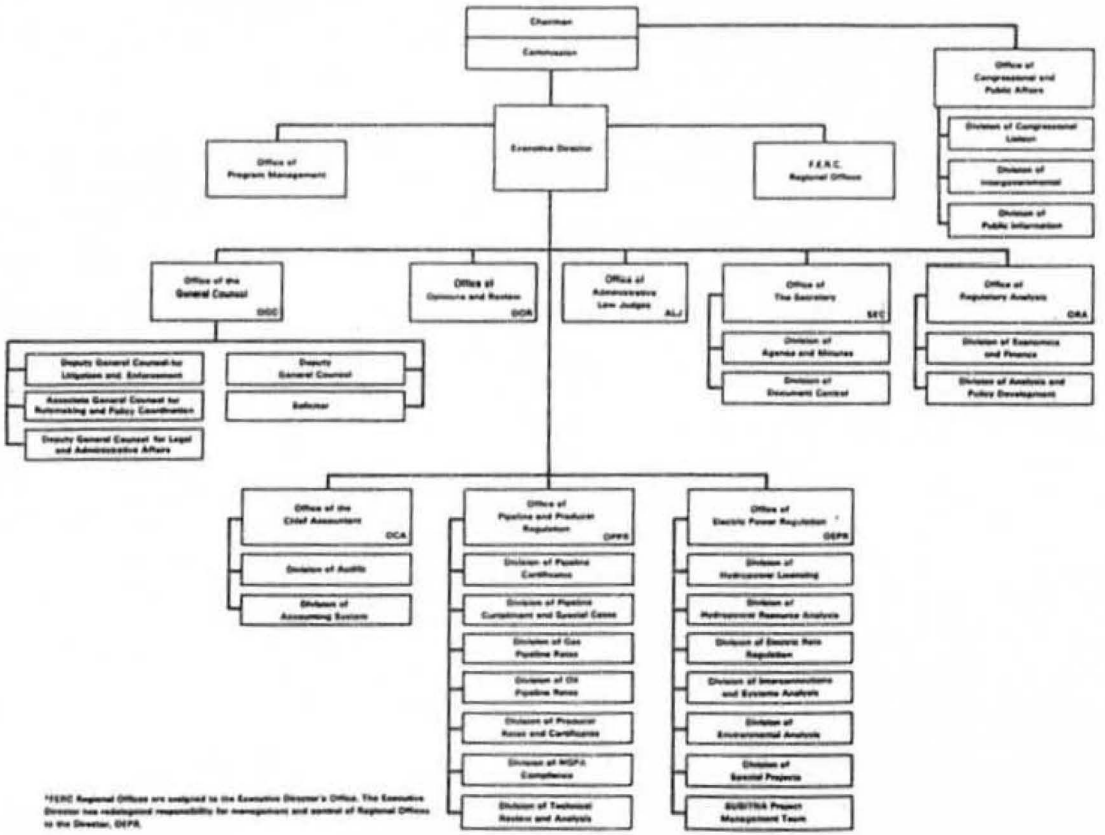
Appendices

APPENDIX A

Federal Energy Regulatory Commission (FERC)

Organization Chart



*FERC Regional Offices are assigned to the Executive Director's Office. The Executive Director has redelegated responsibility for management and control of Regional Offices to the Director, OEPR.

APPENDIX B

FEDERAL ENERGY REGULATORY COMMISSION

WASHINGTON, D.C.

IN REPLY REFER TO

September 22, 1987

MEMORANDUM TO: The Chairman
Commissioners
Executive Director
General Counsel

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

SUBJECT : Susitna Project Management Team

A special project team has been formed to monitor the pre-filing review of the Susitna 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 376-9233, and he will be located in room 301, 400 1st Street.

Attachment

Attachment A

SUSITNA PROJECT MANAGEMENT TEAM

The Susitna Hydroelectric Project in Alaska is among the larger hydroelectric projects (1620 mw) in the United States. The project is scheduled to be completed in 20 years at a cost in excess of $5 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 Susitna project could 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.

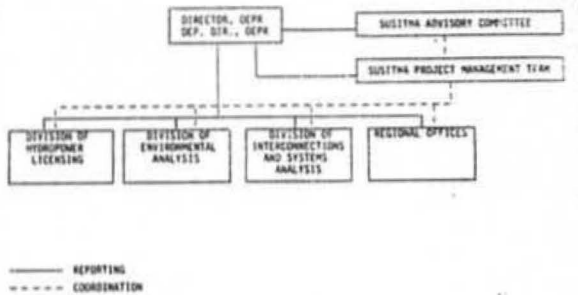
A special project management team has been formed to monitor and coordinate the pre-filing review of the Susitna Hydroelectric Project. It is the responsibility of this team to coordinate review of the application for adequacy and to advise APA concerning any deficiencies prior to formal filing.

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

- provides the necessary coordination and liaison with all divisions of OEPR, 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 analyzes 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.

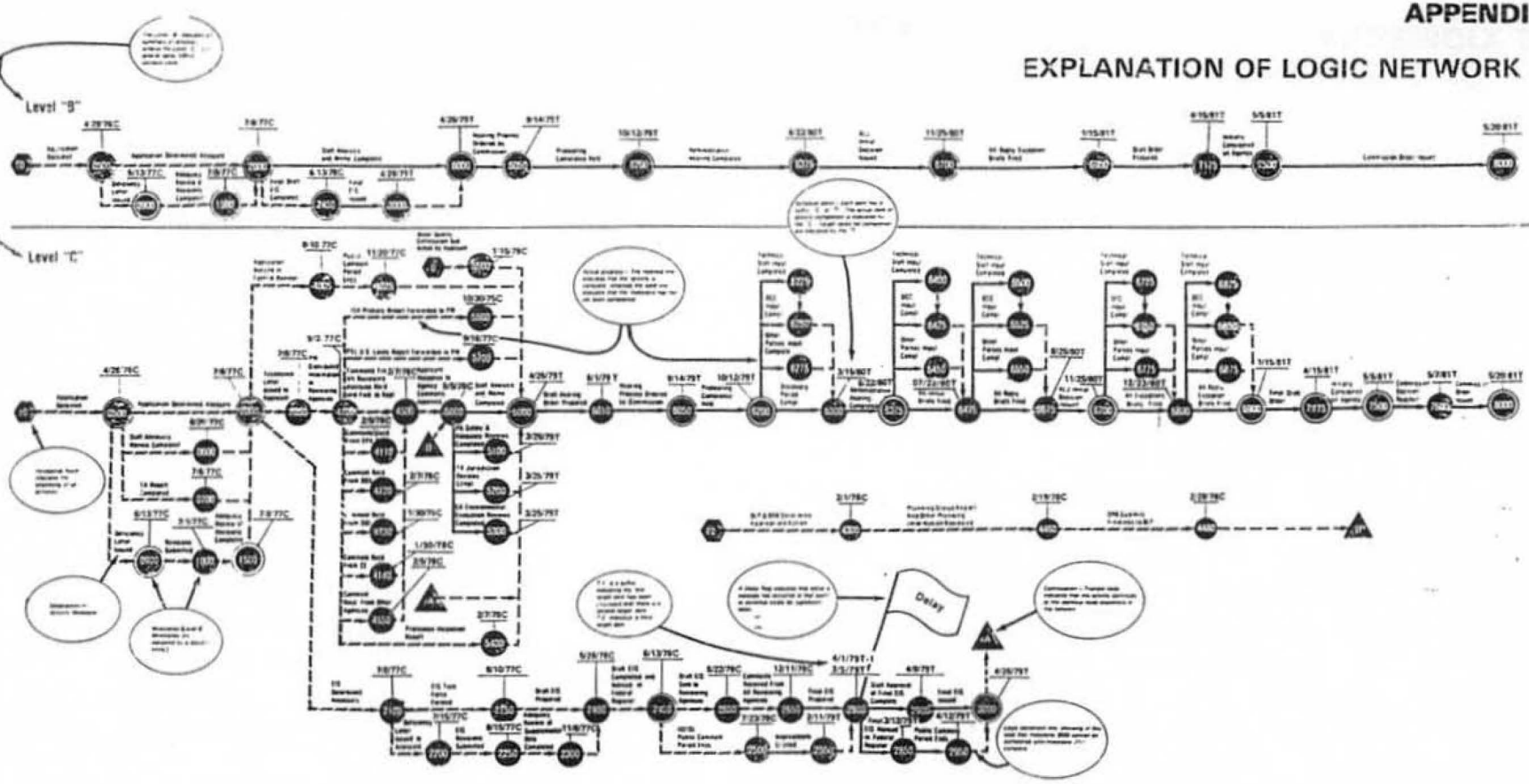
A Susitna Advisory Committee which reports to the Director, OEPR, is also established. It is the responsibility of this Committee to ensure adequate and timely technical input to the application process, highlight problem areas and potential delays, and recommend action to the Director of OEPR. The Susitna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

Attachment B



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	Compietion Date
CE	Corps of Engineers
DEA	Division of Environmental Analysis, FERC
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
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
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
PAB	Project Analysis Branch, DHL, 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

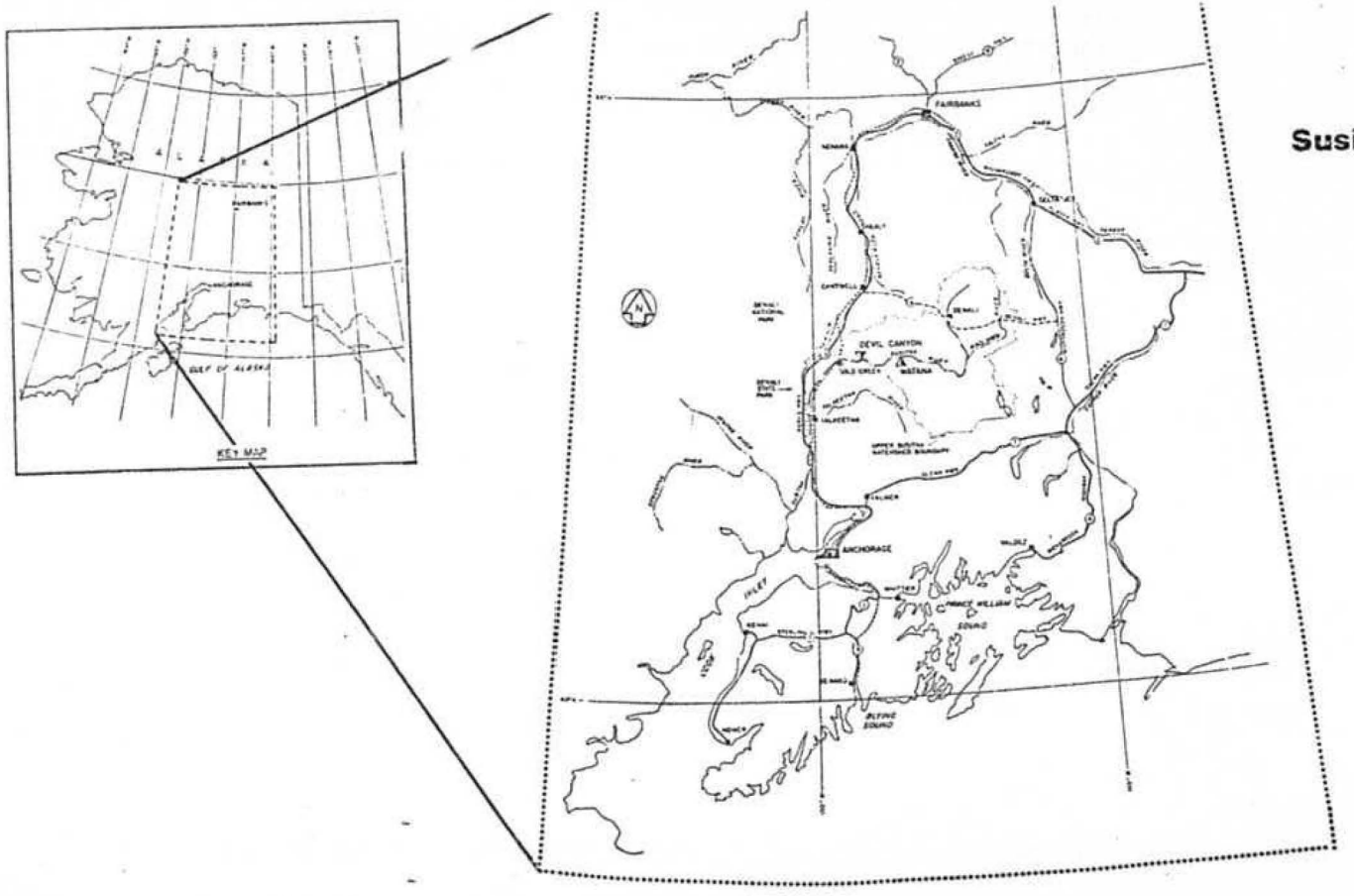
The Alaska Power Authority's Susitna Hydroelectric Project would consist of two developments along the Susitna River between Anchorage and Fairbanks, Alaska, and related access and transmission facilities. The project would have a total installed capacity of 1,620 MW and would provide an average of 6,790 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 4.21 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 1993, followed in 1997 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.

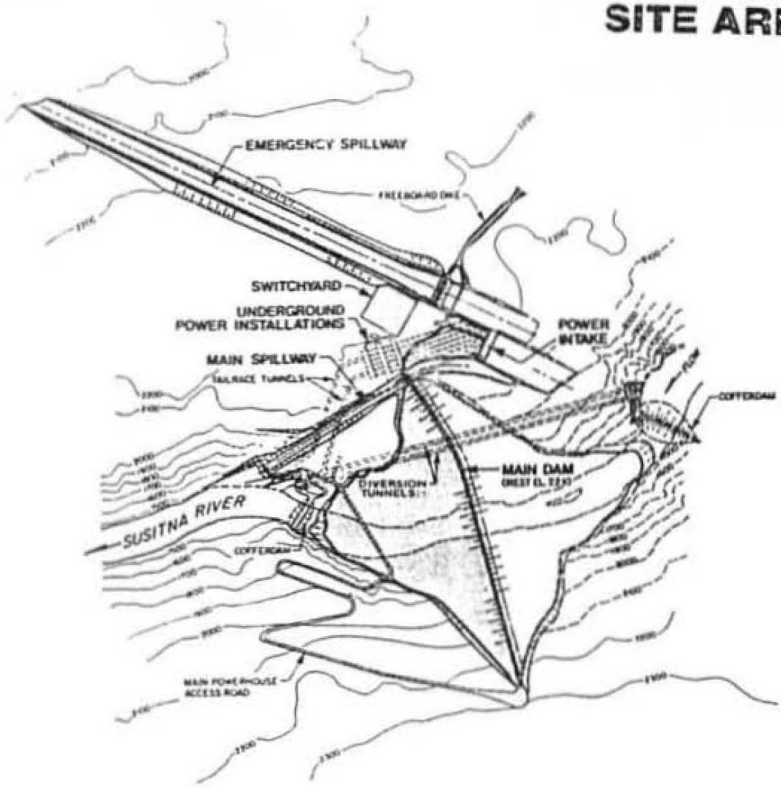
As part of the Susitna Hydroelectric Project, two 26-mile-long, 345-kV transmission lines would be constructed from Watana to Devil Canyon. From Devil Canyon, two 195-mile-long, 345-kV transmission lines would extend to the Fairbanks area and three 84-mile-long, 345-kV transmission lines would extend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

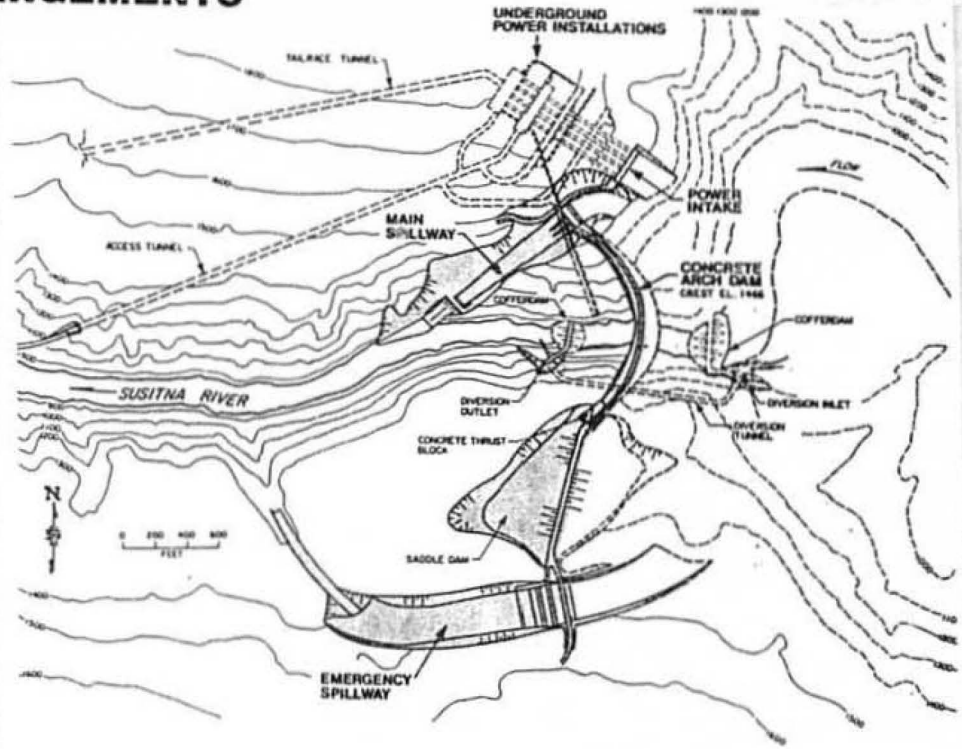


Susitna Hydroelectric Project
LOCATION MAP

Susitna Hydroelectric Project
SITE ARRANGEMENTS



WATANA GENERAL ARRANGEMENT



DEVIL CANYON GENERAL ARRANGEMENT

Susitna Hydroelectric Project

APPENDIX E

KEY PERSONNEL

FERC Staff

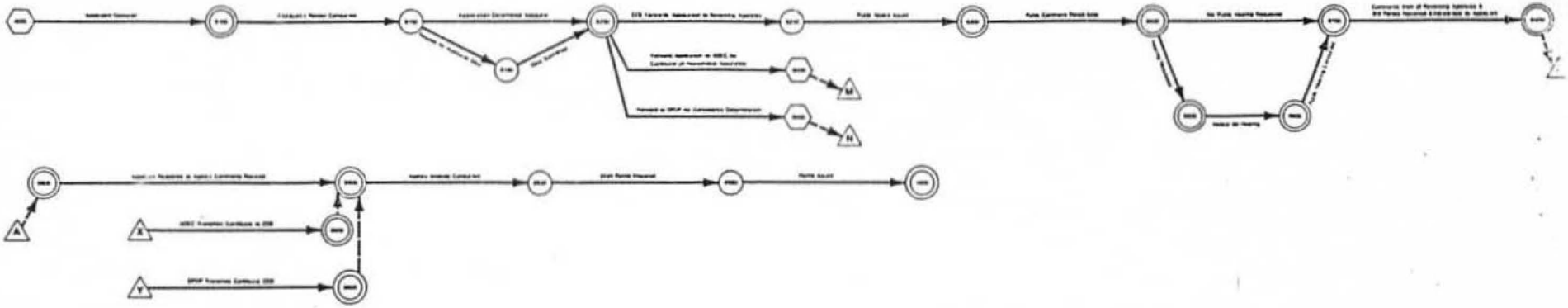
Project Manager: William Wakefield	(202) 376-9233
Deputy Project Manager: Paul Carrier	(202) 376-9815
Engineering:	
Director, Division of Hydroelectric Licensing: Ronald Corso	(202) 376-9171
Coordinator: Jerry Foster	(202) 376-4485
Environment:	
Director, Division of Environmental Analysis: Quentin Edson	(202) 376-1768
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) 357-8494

Alaska Power Authority

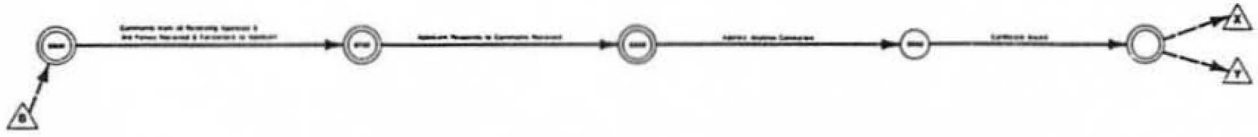
Project Manager: Robert Mohn	(907) 277-7641 Ext. 214
Deputy Project Manager - Engineering: David Wozniak	(907) 277-7641 Ext. 215
Deputy Project Manager - Environment: Richard Flemming	(907) 277-7641 Ext. 211
Deputy Project Manager - Permitting: Tom Arminski	(907) 277-7641
Engineering Consultants - Acres American: Charles Debelius - Harza/Ebasco: Ray Larusso	(301) 992-5300 (907) 277-1561
Regulatory Management Consultant - MSI, Inc.: G. R. Hill	(404) 992-6469
Legal Consultant - Drennan, Byington & Birch: Jane Drennan	(202) 887-0300

Susitna Hydroelectric Project
Federal Permits

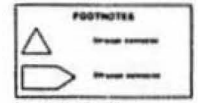
SUMMARY OF MAJOR MILESTONES
Corps of Engineers Section 10 Permits for Structures in Navigable Waters &
Section 404 Permits for the Discharge of Dredged & Fill Materials



Division of Policy Development & Planning Coastal Zone Management Program Certificate of Consistency M
Alaska Department of Environmental Conservation Certificate of Reasonable Assurance M



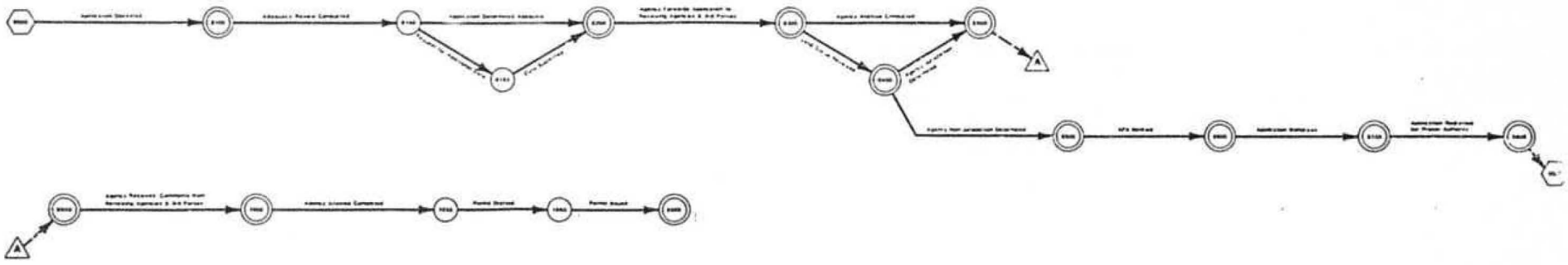
FOOTNOTES



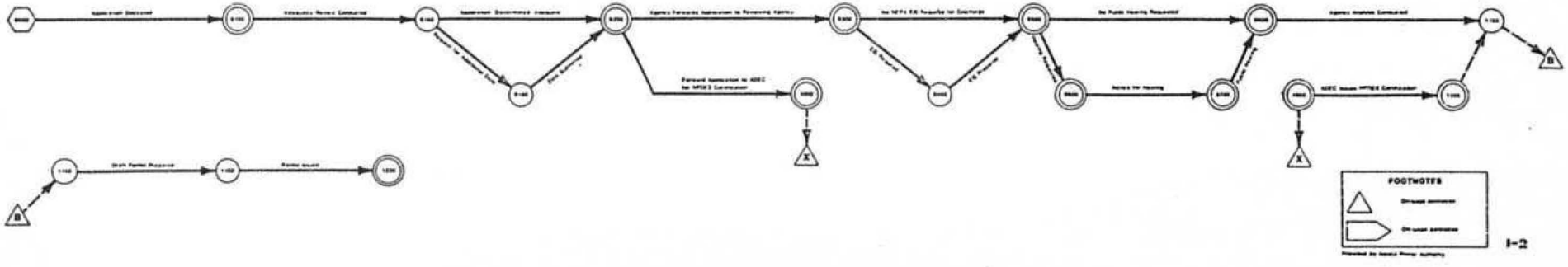
I-1

Susitna Hydroelectric Project
Federal Permits

SUMMARY OF MAJOR MILESTONES
Bureau of Land Management: Application & Mineral Material Free Use Permit; Temporary Use Permit; Right-of-Way

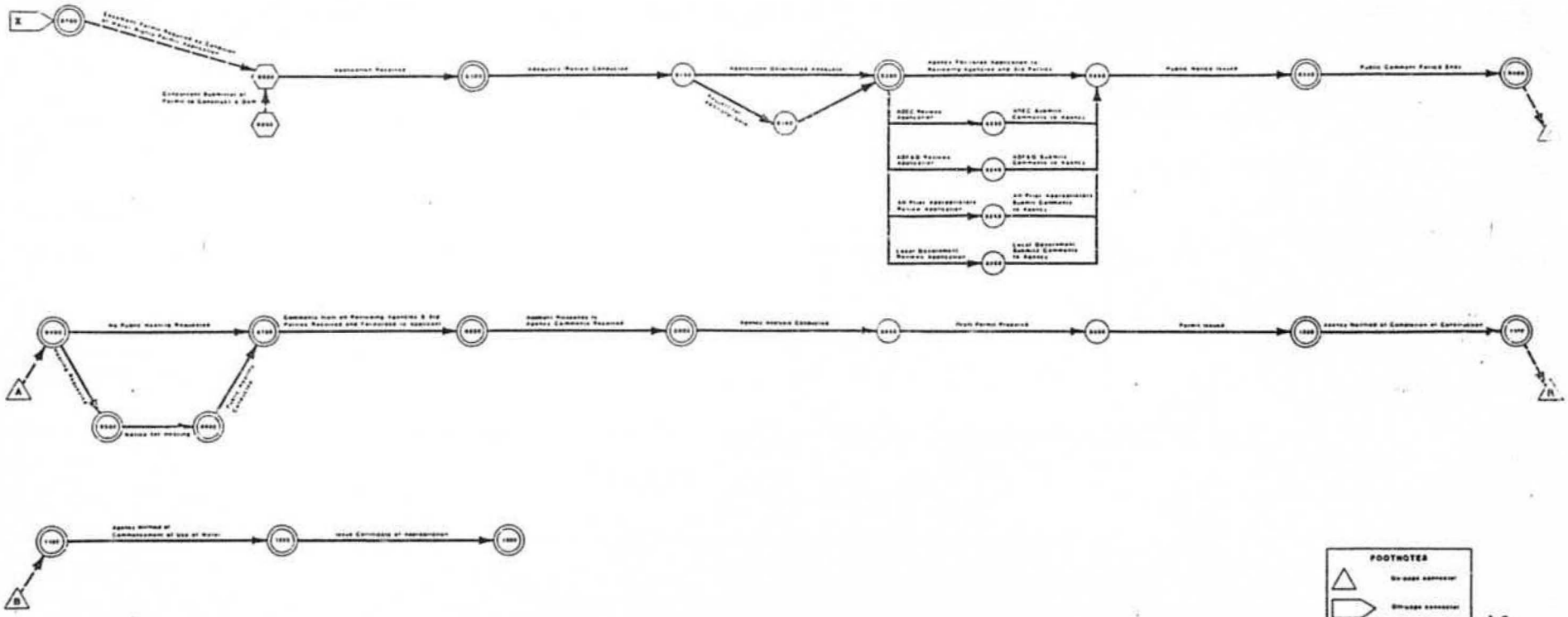


Environmental Protection Agency: National Pollutant Discharge Elimination System Permit



Susitna Hydroelectric Project
State Permits

SUMMARY OF MAJOR MILESTONES
Alaska Department of Natural Resources, Water Rights Permit & Commission of Appropriation

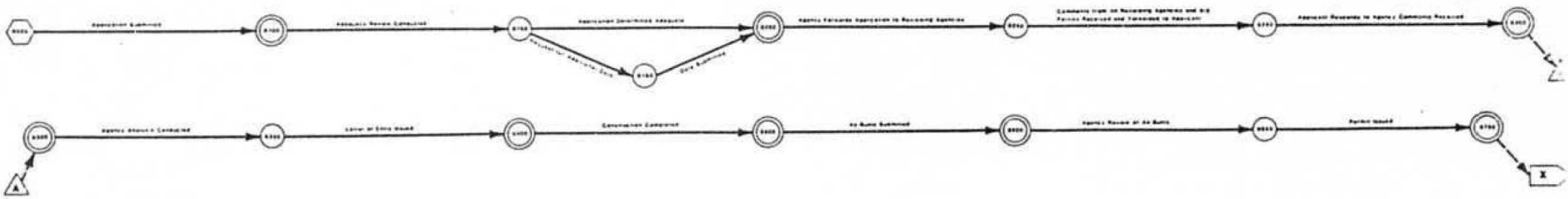


FOOTNOTES

Susitna Hydroelectric Project
State Permits

SUMMARY OF MAJOR MILESTONES

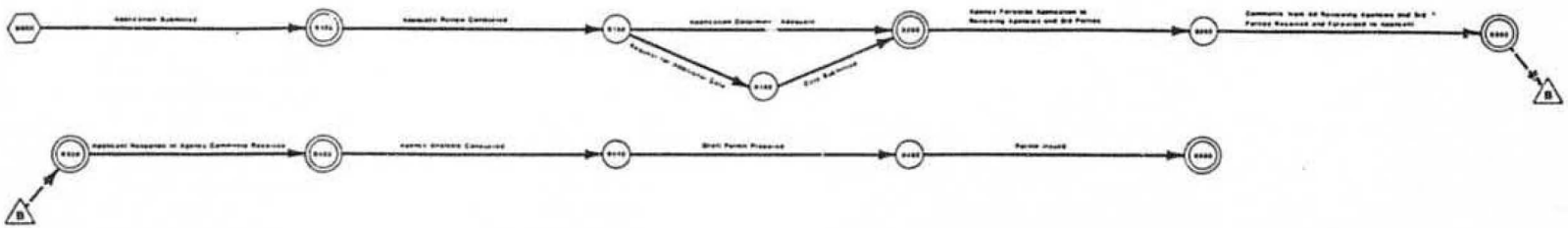
Alaska Department of Natural Resources, Right-of- Way or Easement Permit



Alaska Department of Natural Resources, Permit to Construct a Dam

Alaska Department of Natural Resources, Material Acquisition Free/Lease Permit, Land Use Permit

Alaska Department of Fish and Game, General Instream Authorization



FOOTNOTES

Susitna Hydroelectric Project
LIST OF AGENCIES

APPENDIX J

Federal

Department of Agriculture
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. 20054

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

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

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

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

State Director
Bureau of Land Management
555 Cordova Street
Anchorage, Alaska 99501

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

State Director
Bureau of Indian Affairs
701 C Street, Box 31
Anchorage, Alaska 99513

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
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U.S. Environmental Protection Agency
Regional Administrator
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Alaska Department of Fish and Game
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