

N. JENER  
SUS  
174

RECEIVED  
DEC 27 1982  
LGL ALASKA

DEC 28 1982  
[Signature]

LIST OF DEFICIENCIES  
Draft Susitna Application  
Exhibit E

Prepared by  
Argonne National Laboratory  
9700 S. Cass Ave.  
Argonne, IL 60439

and

Oak Ridge National Laboratory  
P.O. Box X  
Oak Ridge, TN 37830

for

Division of Environmental Analysis  
Federal Energy Regulatory Commission  
Washington, DC 20426

UNIVERSITY OF ALASKA  
ARCTIC ENVIRONMENTAL INFORMATION  
AND DATA CENTER  
707 A STREET  
ANCHORAGE, AK 99501

December 21, 1982

## CONTENTS

|  | <u>Page</u> |
|--|-------------|
| GENERAL DEFICIENCIES . . . . .   | 1           |
| Consultations . . . . .  | 1           |
| Transmission and Access Routes . . . . .                                 | 1           |
| SPECIFIC DEFICIENCIES . . . . .  | 3           |
| Chapter 2 - Water Use and Quality . . . . .                              | 3           |
| Chapter 3 - Fish, Wildlife, and Botanical Resources . . . . .            | 3           |
| Chapter 5 - Socioeconomics . . . . .                                     | 4           |
| Chapter 6 - Geological and Soil Resources . . . . .                      | 4           |
| Chapter 7 - Recreational Resources . . . . .                             | 4           |
| Chapter 9 - Land Use Patterns . . . . .                                  | 5           |
| Chapter 10 -Alternative Locations, Designs, and Energy Sources . . . . . | 5           |

## GENERAL DEFICIENCIES

### CONSULTATIONS

Applicants must attempt to consult with the appropriate federal, state, and local resource agencies in preparing their license application. Consultation must be documented, where possible, by appending to the Exhibit E a letter from each agency consulted that indicates the nature, extent, and results of consultation. Exhibit E must also contain a discussion of issues and conflicts identified during consultation and the steps proposed to resolve these issues.

In general, while Exhibit E of the draft Susitna application implies or makes reference to consultations in progress or completed, the required documentation and discussion of the consultations have not been included. In review of the draft application and preparation of the following list of deficiencies, it has been assumed that the applicant is cognizant of the FERC requirements concerning consultation and that the final license application will be complete in this respect. Therefore, deficiencies relative to consultations have not been explicitly included in the following list.

### TRANSMISSION AND ACCESS ROUTES

Environmental information covering the proposed and alternative transmission and access routes (including the rail spur to Devil Canyon) must be provided in detail commensurate with the scope of the project. This information must be provided in the Exhibit E Reports on Water Use and Quality; Fish, Wildlife, and Botanical Resources; Historic and Archaeological Resources; Socioeconomics; Geological and Soil Resources; Recreational Resources; Aesthetics; Land Use; and Alternative Locations and Designs. The environmental information provided must be sufficient to allow for the analysis of impacts and the development of mitigation measures. Further, the transmission and access route selection process must be thoroughly discussed in the Report on Alternative Locations and Designs.

## SPECIFIC DEFICIENCIES

### 2. WATER USE AND QUALITY

1. p. E-2-38, Sec. 3.2(b)(i) Provide the basis for the selection of proposed filling and operating target flows, and data sufficient to evaluate the ability of these flows to minimize downstream impacts.
2. Secs. 2, 3, 5 Quantify the effects of project operations on downstream nitrogen supersaturation and the effectiveness of cone valves in reducing nitrogen concentrations.
3. p. E-2-68, ¶ 2 Include data on reservoir surface area, volume, maximum depth, mean depth, shoreline length, and area-capacity curve.

### 3. FISH, WILDLIFE, AND BOTANICAL RESOURCES

1. Describe the existing grayling fishery resource in the Watana and Devil Canyon Reservoir area and the existing anadromous and other salmonid fishery resources in the Susitna River between the proposed dam sites and Talkeetna (population estimates). Further, quantify the project-related reductions in habitat required for successful reproduction and maintenance of these populations and estimates of any population losses projected, and the effectiveness of mitigation measures proposed to offset these losses.
2. p. E-3-120 Clearly indicate proposed mitigation measures, as opposed to potential mitigation measures, and describe proposed measures to the extent practical as required under 18 CFR 4.41 (f)(3)(iv), Parts C, D, and E.
3. p. E-3-165, ¶ 4, to p. E-3-186, ¶ 2 Provide a description of impacts to wetlands and floodlands resulting from construction and operation of the proposed project facilities.

4. p. E-3-279 to  
p. E-3-372
- Describe anticipated impacts on human use (e.g., sport and subsistence harvesting) of the principal wildlife species in the project area.

## 5. SOCIOECONOMICS

1. p. E-5-38, ¶ 6;  
p. E-5-124 ¶
- Provide onsite employment and payroll by month.
2. p. E-5-20, ¶ 2,  
through  
p. E-5-36, ¶ 2;  
p. E-5-39, ¶ 3;  
p. E-5-41, ¶ 1,  
through  
p. E-5-46, ¶ 2;  
p. E-5-102  
through  
p. E-5-120;  
Appendix E.5A,  
(c)(iii)
- Provide the basis for the assumptions used in projecting residency and movement of construction workers.

## 6. GEOLOGICAL AND SOIL RESOURCES

1. p. E-6-1, ¶ 1
- Include a discussion of known and potential mineral resources in the project area.

## 7. RECREATION RESOURCES

1. p. E-7-61, ¶ 6
- Provide a base map of the project area in sufficient detail to illustrate the shoreline buffer zone within the project boundary. Provide mapping details to illustrate: (1) all existing recreational developments within and abutting the project boundary, (2) recreation facilities proposed for initial development, and (3) recreational facilities proposed for future development. Features that should be identified include: access roads and trails, and the number and types of facilities provided for shelter, camping, picnicking, boat docking and launching, etc. Provisions for sanitation and waste disposal should also be indicated.

## 9. LAND USE PATTERNS

1. p. E-9-19, ¶ 5, to p. E-9-20, ¶ 5 Identify and locate on appropriate maps wetlands and floodlands in the proposed project area.

## 10. ALTERNATIVE LOCATIONS, DESIGNS, AND ENERGY SOURCES

1. Provide a discussion of reservoir operation alternatives (reservoir release targets), as mentioned in Exhibit B, including variation in downstream flows and a qualitative comparison of the associated impacts.