

STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

FOR YOUR RECORD & INFO

SOUTHEAST REGIONAL OFFICE
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To <i>VERN</i>	From <i>JOHN -</i>
Co.	Co.
Dept.	Phone #
Fax #	Fax #

10 November 1992

NOV 20 1992

Mr. Robert Grimm, President
Alaska Power and Telephone Company
P.O. Box 222
Port Townsend, WA 98368

CERTIFIED MAIL RETURN
RECEIPT REQUESTED
#P-532 466 207

Re: FERC/Project No. 10440

AK920505-03J

In accordance with Section 401 of the Clean Water Act of 1977 and provisions of the Alaska Water Quality Standards, the Department of Environmental Conservation has issued the enclosed Certificate of Reasonable Assurance for the proposed Black Bear Lake hydroelectric project.

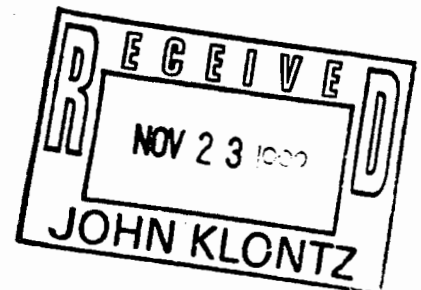
Department of Environmental Conservation regulations provide that any person who disagrees with this decision may request an adjudicatory hearing by filing a statement of issues under 18 AAC 15.200-310. The hearing request should be mailed or hand delivered to the Commissioner of the Alaska Department of Environmental Conservation, 410 Willoughby Avenue, Suite 105, Juneau, Alaska 99801-1795. Failure to submit a hearing request within thirty (30) days of receipt of this letter constitutes a waiver of your right to judicial review of this decision.

Sincerely,

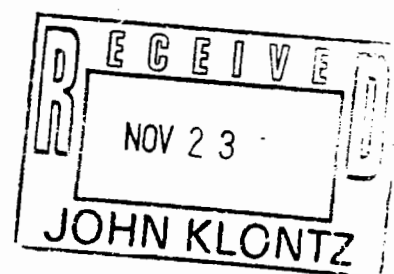
Dick Stokes
Regional Environmental Supervisor

Enclosure

cc: Joe Davis, FERC, Washington DC
Susan Cantor, EPA, Anchorage
Lorraine Marshall, ADGC, Juneau
Beth Kerttula, ADOL, Juneau
Jim Durst, ADF&G, Juneau
Steven Pennoyer, NMFS, Juneau
Nevin Holmberg, USFWS



ADEC, SERO, Juneau
ADEC, Ketchikan District Office
Elizaveta Shadura, ADNR, Juneau
Marilyn Westfall, City of Klawock
Jon Bolling, City of Craig
Bob Loescher, Sealaska Corp.
Corrine Garza, Klawock/Heenya Corporation



STATE OF ALASKA

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CERTIFICATE OF REASONABLE ASSURANCE

A Certificate of Reasonable Assurance, as required by Section 401 of the Clean Water Act, has been requested by the Alaska Power and Telephone Company, P.O. Box 222, Port Townsend, WA 98368 for the proposed hydroelectric project to generate renewable power for use on Prince of Wales Island replacing existing diesel powered electric generation facilities on the island. The project lies within several land management jurisdictions. Black Bear Lake, the intake, a small portion of penstock and part of the transmission line are on U.S. Forest Service lands. The lower portion of the penstock, powerhouse, access road, and majority of the transmission line are on lands owned by Sealaska Corporation. The remainder of the transmission line is on Klawock/Heenya Corporation and City of Klawock lands.

Black Bear Lake discharges through a notch cut in the bedrock rim at the lower end of the lake and drops 1,400 feet over a series of falls to form Black Bear Creek. These falls bar any upstream fish migration. At low flows, the creek infiltrates into the coarse alluvial deposits of Black Bear Creek valley at a point about .6 of a mile below the outlet of Black Bear Lake and at approximately 1,000 feet downstream, reemerges at several upwelling areas (Lake Fork). Other upwellings exist from natural springs (Spring Fork) which contribute to the flow of Black Bear Creek. Black Bear Lake supports a self-sustaining population of rainbow trout, and Black Bear Creek is cataloged as an anadromous fish stream. The provision of increased flows to Black Bear Creek during the summer low flow period will be a benefit from the project.

Project Description:

The project will utilize natural run-of-river flows into Black Bear Lake as well as the upper 15 feet of Black Bear Lake. The net storage capacity of the reservoir will be siphoned down 15 feet from elevation 1,687 to a minimum elevation of 1,672. A siphon intake will extend approximately 150 feet into Black Bear Lake from the shoreline near the lake outlet. Three helicopter landing areas (a total of 5 for the project), which will be cleared of trees, are anticipated in the vicinity of the intake.

The intake will convey water from the lake to a 30-inch penstock which will extend approximately a distance of 4,900 feet to the powerhouse in three sections: (1) The first section of the penstock (820 feet), which includes a siphon and flow bypass, will be buried or bermed over. Burial involves excavation 87 feet deep in muskeg organic soil. After the pipe exits the lake, the penstock raises slightly. A vacuum pump and valve will be located at the high point of the pipeline, at elevation 1,695, to prime the siphon to fill the penstock with water. A valve vault will be located 400 feet downstream of the vacuum pump, to allow controlled operation of the siphon. A bypass pipe will be located

upstream of the valve vault, to divert flow from the siphon intake to Black Bear Creek above the falls to ensure continued flows into the creek when the lake level is below the natural spillway crest. (2) The second section (1,930 feet) emerges below the valve vault and will be supported on concrete piers which will be founded in the near surface rock and saddles down gradual slopes and two steep rock cliffs. The pipe will be restrained to the piers and anchored by thrust blocks as required to resist thermal, gravitational, hydrostatic and dynamic forces. (3) The third section (2,150 feet) will be buried beginning at the lower steep slope area and connects to the powerhouse. At the time of project startup, a significant amount of water will spill from the lake; when the project reaches capacity, very little water will spill over the falls.

The powerhouse will be located adjacent to Black Bear Creek and will contain two turbines and synchronous generators for a total installed capacity of 4.5 MW. A tailrace channel will transport the turbine discharge 100 feet to a tailrace apron which will distribute the flow to the creek. The tailrace includes infiltration galleries, from which the inflow will aid in recharging subterranean water which resurfaces at the upwelling areas. A switchyard will be located adjacent to the powerhouse. A pole-mounted transmission line will begin at the switchyard and follow an existing logging road for a distance of five miles to the State highway and then turn southwest for about nine miles to the Klawock substation.

Access to the project will be by approximately four miles of improved existing logging roads from the State Highway and construction of a new road at the end of the existing northside Black Lake logging road to connect to the powerhouse site. During construction, the existing southside logging road will be used as additional site access. A temporary tram will be installed to transport material to the upper slope and intake area during construction. It will be partially dismantled after construction, with foundations and supports left in place for future maintenance.

In addition, the project description includes mitigation measures identified in the FERC application (pages E-18/19, E-49, E-65/67, and Appendix 6). The measures include monitoring for water quality and fish populations as well as practices to minimize impacts. Concerning water quality, the erosion and sediment control plan (ESCP), appendix 6, contains detailed site-specific measures for erosion and sedimentation as well as APT's adoption of general practices (standards and guidelines, best management practices) used by other government agencies, such as U.S. Environmental Protection Agency, U.S. Forest Service, and Alaska Department of Natural Resources forest practice guidelines. The mitigation measures address such things as drainage, settling ponds, straw bale barriers, silt fences, jute netting, revegetation, handling of soils, etc. APT proposes to perform water quality monitoring during and after construction, in the same manner as the pre-project program and at the previously sampled locations for comparison. Concerning fish, the mitigation measure address such things as culverts with sediment trap outlets, tailrace infiltration galleries, intake design, etc. In addition, APT states they will conduct monitoring of fish populations, and they will coordinate with DFG on the pre-

and post-project fish monitoring studies. All of the mitigation measures are part of the proposal and are included in considerations upon which the State has developed its decision.

The proposed activity is located approximately nine miles northeast of Klawock on Prince of Wales Island, Sections 12 and 13, R. 82 E., T. 73 S., and R. 83 E., T. 73 S., Copper River Meridian.

Public notice of the application for this certification has been made in accordance with 18 AAC 15.180.

Water Quality Certification is required for the proposed activity because the activity will be authorized by the Federal Energy Regulatory Commission, Project No.10440, and a discharge may result from the proposed activity.

Having reviewed the application and comments received in response to the public notice, the Alaska Department of Environmental Conservation certifies that there is reasonable assurance that the proposed activity, as well as any discharge which may result, is in compliance with the requirements of Section 401 of the Clean Water Act which includes the Alaska Water Quality Standards, 18 AAC 70, and the Standards of the Alaska Coastal Management Program, 6 AAC 80. The stipulations were developed during the interagency project review by the Departments of Environmental Conservation, Fish and Game and Natural Resources and coordinated according to 6 AAC 50. They are necessary to ensure the project is consistent with the standards of the Alaska Coastal Management Program 6 AAC 80.040-150.

1. Any significant impacts in water quality shall be immediately reported to DEC and DFG within 24 hours of discovery.
2. The fisheries and water quality monitoring activities and findings shall be continued both during construction and for at least five years following the completion of this project, and the findings shall be documented and reported to DFG and DEC on an annual basis. If after five years of project implementation, it appears there are still unresolved fisheries or water quality concerns, then monitoring shall continue. The monitoring program may end when it has been determined to the satisfaction of DFG and DEC that no correction action will be necessary as a result of this project.
3. The project shall be configured so as to not interfere with Alaska's ability to explore and develop the breccia mineralized areas at the project site.

11/10/92

Date



Dick Stokes

Regional Environmental Supervisor