

139 FERC ¶ 62,165
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

City and Borough of Sitka, Alaska

Project No. 2230-044

ORDER AMENDING LICENSE AND REVISING ANNUAL CHARGES

(Issued May 30, 2012)

1. On November 23, 2010,¹ the City and Borough of Sitka, Alaska, licensee for the Blue Lake Project No. 2230, filed an application to amend its license in order to raise the project's dam, expand the reservoir, replace several turbine/generator units, and modify other project features. The project is located on Sawmill Creek in the Borough of Sitka, Alaska and occupies federal lands managed by the U. S. Forest Service (Forest Service) within the Tongass National Forest.

Background

2. The license for the Blue Lake Project was issued July 10, 2007.² The authorized facilities consist of the following three developments: (1) the Blue Lake Development (located between stream miles 2.31 at Blue Lake dam and 0.32 at the Blue Lake powerhouse); (2) the Fish Valve Unit (located about 1,900 feet downstream of the Blue Lake dam); and (3) the Pulp Mill Feeder Unit (located just upstream from the Blue Lake powerhouse). Water is discharged from the Fish Valve and Pulp Mill Feeder units into the Sawmill Creek bypassed reach. The total length of the Sawmill Creek bypassed reach (from Blue Lake dam to Blue Lake powerhouse) is over 10,000 feet.

3. The Blue Lake Development includes: (1) a 211-foot-high, 256-foot-long concrete arch dam equipped with a 140-foot-long spillway and a release valve at the base of the dam; (2) a 1,284-acre reservoir (Blue Lake) with a normal water surface elevation of 342 feet mean sea level (msl); (3) a 7,110-foot-long power conduit consisting of: (a) an 11.5-foot-diameter, 1,500-foot-long upper tunnel; (b) a 7-foot-diameter, 460-foot-long penstock; (c) a 10-foot-diameter, 4,650-foot-long lower tunnel; (d) a 7-foot-diameter, 500-foot-long penstock with a 36-inch-diameter tap; (4) a powerhouse containing two 3,000- kilowatt (kW) generating units; (5) a 150-foot-long tailrace; (6) a 5-mile-long, 69-kilovolt (kV) transmission line; and (7) appurtenant facilities.

¹ As supplemented on March 10, and April 6, 7, and 14, 2011, and April 11, 2012.

² 120 FERC ¶ 62,024 (2007).

4. The Fish Valve Unit includes: (1) a 36-inch wye branch connected to a valve on the power conduit; (2) a 24-inch-diameter, 19-foot-long penstock; (3) a powerhouse containing one 670-kW generating unit; (4) a 7,700-foot-long, 12.47-kV transmission line; and (5) appurtenant facilities.

5. The Pulp Mill Feeder Unit includes: (1) a 36-inch tee connected to the power conduit; (2) a 36-inch-diameter, 24-foot-long penstock; (3) a powerhouse containing one 870-kW generating unit; (4) a 470-foot-long, 4.16-kV transmission line; and (5) other appurtenant facilities.

Proposed Action

6. The licensee proposes to raise the dam by 83 feet from a spillway crest elevation of 342 to 425 feet msl. The maximum elevation of the reservoir would correspondingly increase the maximum surface area from 1,284 to 1,646 acres (an increase of 362 acres). The land to be inundated by the enlarged reservoir is within the Tongass National Forest. The proposal also includes construction of a new intake with an invert elevation of 313 feet msl feeding a new, underground, 850-foot-long intake tunnel that intersects the existing intake tunnel. The existing intake would be decommissioned with the gate closed and a plug would be installed upstream of the new tunnel tie-in. The new intake would include a fixed wheel gate and gate hoist with power supplied by a 1,400-foot-long underground power line running from the Fish Valve unit following the intake tunnel and Blue Lake road. The licensee also proposes to lengthen steel liners at the portals of the power tunnel due to higher pressure. Also, to improve operational flexibility at the project, the licensee proposes to construct, about 900 feet upstream the power tunnel from the powerhouse, a 20-foot-diameter surge chamber vented to the atmosphere at an elevation of 465 feet msl and to replace the existing 7-foot-diameter lower penstock with a new, 9-foot-diameter one.

7. To make use of the additional head from the dam raise, the existing Fish Valve unit would be replaced with a 1,000 kW turbine/generator unit. The licensee also intends to decommission the 870 kW Pulp Mill Feeder unit and associated transmission line. The proposal also includes plans to decommission the existing Blue Lake unit powerhouse and construct a new one, 60 feet downstream on Sawmill Creek that would be 64-feet-wide, 140-feet-long, and 40-feet-tall. The new powerhouse would hold three Francis turbines each rated at 5,300 kW. The project's total authorized installed capacity would increase from 7,540 to 16,900 kW.

8. As discussed above, raising the dam 83 feet will inundate an additional 362 acres of land. Because the licensee intends to adjust the distance between the project boundary and reservoir, approximately 123 additional acres would be included within the project boundary, 122 of which are located within the Tongass National Forest and managed by the Forest Service. Consequently, the proposed amendment would change the lands within the project boundary as shown below.

Land Ownership	Land within the Existing Project Boundary (acres)	Land within the Proposed Project Boundary (acres)
National Forest System land	1,676.46 (including 25.1 acres for transmission line)	1,798 (including 25.1 acres for transmission line)
Non-federal land	114.11	115
Total acreage	1,790.57	1,913

Consultation

9. Prior to filing the license amendment application with the Commission, the licensee consulted with the Alaska Department of Fish and Game (Alaska DF&G), the U.S. Fish and Wildlife Service (FWS), the Alaska Department of Natural Resources, the Sitka Tribe of Alaska (Sitka Tribe), the Forest Service, the Alaska State Historic Preservation Officer (SHPO), the National Marine Fisheries Service (NMFS), the Sitka Conservation Society, the Southeast Alaska Conservation Council, and the public. The licensee held consultation meetings on April 16, and 17, 2008, in Juneau and Sitka, respectively, and conducted a site review on April 17, 2008. The licensee developed Scoping Document 1 and filed it November 11, 2008, and held a scoping meeting and second site review on December 11, 2008. The Forest Service and the Sitka Conservation Society issued comments on the scoping document. A second scoping document was filed on June 29, 2009. A draft amendment application and preliminary draft environmental assessment were filed with the Commission on March 9, 2010, and comments were received from the FWS, Sitka Conservation Society, Alaska DF&G, and the Forest Service.

Public Notice

10. On April 8, 2011, the Commission issued public notice that the amendment application was accepted for filing, that the project was ready for environmental analysis, and soliciting comments, recommendations, terms and conditions, and prescriptions. In response, timely notices of intervention were filed by the Forest Service, which also filed 4(e) terms and conditions, and the Alaska DF&G, which filed recommendations as well. A comment was also filed by a member of the public who did not identify him or herself.

11. On January 12, 2012, Commission staff issued an Environmental Assessment (EA) for the proposed action. Comments related to the EA were filed by the Forest Service, Alaska DF&G, the Department of the Interior, and the licensee. These comments are discussed in the final EA issued concurrently with this order.

Water Quality Certification

12. Under section 401(a) of the Clean Water Act (CWA),³ the Commission may not authorize construction or operation of a hydroelectric project that may result in a discharge from the project unless the state water quality certifying agency either has issued water quality certification for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. Section 401(d) of the CWA provides that the certification shall become a condition of any federal license that authorizes construction or operation of the project.⁴

13. By correspondence filed with the Secretary on April 9, 2007, the Alaska Department of Environmental Conservation states it does not participate in the 401 certification process as part of Commission licensing proceedings.

Threatened and Endangered Species

14. Section 7(a)(2) of the Endangered Species Act of 1973,⁵ requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence to federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat.

15. By letter issued March 1, 2011, the Commission designated the licensee as its non-federal representative for the purpose of informal consultation under the Endangered Species Act. The FWS and NMFS indicated the listed species near the project are the short-tailed albatross, the Steller sea lion, and the humpback whale. By letter dated April 4, 2011, NMFS stated there are no listed species under its jurisdiction found in the vicinity of the project. The short-tailed albatross, Steller sea lion, and humpback whale occupy marine environments and would not be affected by activities within the project area.

National Historic Preservation Act

16. Under section 106 of the National Historic Preservation Act,⁶ and its implementing regulations,⁷ federal agencies must take into account the effect of any proposed

³ 33 U.S.C. § 1341(a) (2006).

⁴ 33 U.S.C. § 1341(d) (2006).

⁵ 16 U.S.C. § 1536(a) (2006).

⁶ 16 U.S.C. § 470 (2006) *et seq.*

undertaking on properties listed or eligible for listing in the National Register (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the SHPO to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

17. Article 403 of the project's license requires the licensee to consult with the Alaska SHPO, the Forest Service, and the Sitka Tribe if archaeological or historic properties or human remains are identified during project modifications or construction that require land disturbing activities or during project operation or maintenance other than routine maintenance. Forest Service Condition No. 7 requires the licensee to evaluate the potential effects of its actions on historic properties in compliance with section 106 and in consultation with the Forest Service and the Alaska SHPO. The condition also requires compliance with the Archaeological Resources Protection Act (36 CFR 296) if recovery, excavation, and/or preservation of properties on federal lands is required.

18. Consultation with the Alaska SHPO was initiated on November 17, 2011. By letter filed April 11, 2012, the Alaska SHPO concurred with a determination of no historic properties affected by the proposed action.

Section 18 Fishway Prescriptions

19. Section 18 of the Federal Power Act (FPA)⁸ provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate. No fishway prescriptions or reservations of authority were filed under section 18 of the FPA.

Coastal Zone Management Act

20. Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA),⁹ the Commission cannot issue a license for a project within or affecting a state's coastal zone unless the state CZMA agency concurs with the license applicant's certification of consistency with the state's CZMA program, or the agency's concurrence is conclusively presumed by its failure to act within 180 days of its receipt of the applicant's certification.

⁷ 36 C.F.R. Part 800 (2011).

⁸ 16 U.S.C. § 811 (2006).

⁹ 16 U.S.C. § 1456(3)(A) (2006).

21. On July 1, 2011, the Alaska Coastal Zone Management Program expired and therefore the CZMA no longer applies in Alaska.

Magnuson-Stevens Fishery Conservation and Management Act

22. The Magnuson-Stevens Fishery Conservation and Management Act requires federal agencies to consult with NMFS on all actions that may adversely affect Essential Fish Habitat.

23. Essential Fish Habitat has been designated for pink, chum, and coho salmon including spawning and rearing habitat in Sawmill Creek. By letter dated April 1, 2011, NMFS stated that, with the adoption of Alaska DF&G's recommendations, the licensee's proposal would not adversely affect essential fish habitat in Sawmill Creek. As discussed below, this order adopts all of Alaska DF&G's recommendations for this amendment proceeding.

Section 4(e) of the FPA

24. Section 4(e) of the FPA¹⁰ provides that the Commission may issue a license for a project on a federal reservation only if it finds that the license would not interfere or be inconsistent with the purpose for which the reservation was created or acquired. In addition, section 4(e) requires that any license for which we make this finding must include conditions prescribed by the Secretary under whose supervision the reservation falls. The Blue Lake Project occupies lands administered by the Forest Service.

25. The Forest Service had filed 12 4(e) conditions during the relicensing. On June 7, 2011, the Forest Service filed an additional 10 4(e) conditions related to this amendment. These conditions require the licensee to: (1) obtain a special use authorization (condition 13); (2) seek Forest Service approval on final designs (condition 14); (3) install and maintain traffic safety controls on Forest Service roads during project construction (condition 15); (4) file with the Commission a Forest Service approved Safety During Project Construction Plan (condition 16); (5) comply with modification of Forest Service terms and conditions as applied to issuance of a special use permit (condition 17); (6) comply with changes to 4(e) conditions following issuance of a biological opinion or water quality certification (condition 18); (7) develop and file with the Commission a Project Mitigation and Monitoring Plan (condition 19); (8) hire an Environmental Compliance Monitor (condition 20); (9) file with the Commission a Forest Service approved Noxious Weed Management Plan (condition 21); and (10) file with the Commission a Forest Service approved Erosion Control Plan prior to new

¹⁰ 16 U.S.C. § 797(e) (2006).

construction or non-routine maintenance with the potential to cause erosion or stream sedimentation affecting Forest Service lands (condition 22).

26. The Forest Service's mandatory conditions are set forth in Appendix A of this order and are incorporated into the license by ordering paragraph (D).

Recommendations Pursuant to Section 10(j) of the FPA

27. Section 10(j) of the FPA¹¹ requires the Commission to include license conditions based upon recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,¹² to "adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)" affected by the project. In response to the Commission's April 8, 2011 notice, the Alaska DF&G filed 14 preliminary recommendations on June 8, 2011, under section 10(j) of the FPA.

28. Of Alaska DF&G's 14 recommendations, we consider seven of them to fall within the scope of section 10(j). Four of Alaska DF&G's recommendations suggest the licensee continue to maintain existing instream flows, ramping rates, and startup/shutdown procedures and utilize existing fish exclusion criteria. These recommendations are being implemented because the licensee has not proposed, and the Commission is not authorizing any changes to operation or fish exclusion criteria. A further recommendation is for erosion and sediment monitoring through a Water Quality Monitoring Plan; a proposal already put forward by the licensee and under review by Alaska DF&G. This recommendation is being incorporated into the Construction Water Quality Monitoring Plan and Long-Term Water Quality Monitoring Plan required by Articles 409 and 410, respectively. The two remaining 10(j) recommendations made by Alaska DF&G include a Fuel and Hazardous Substance Spill Plan, which is consistent with 4(e) condition 3 and incorporated into Article 405, and a recommendation to treat condensate and leakage from turbines and other equipment to remove pollutants implemented through Article 19 and the regular inspection of the project's spill containment and oil-water separator equipment by Commission staff.

29. Of the remaining seven recommendations that we consider to fall outside the scope of section 10(j), we recommend adopting all seven of these recommendations pursuant to section 10(a) of the FPA as discussed below.

¹¹ 16 U.S.C. § 803(j) (2006).

¹² 16 U.S.C. §§ 661 (2006) *et seq.*

Recommendations Pursuant to Section 10(A)(1) of the FPA

30. Section 10(a)(1) of the FPA¹³ requires that any project for which the Commission issues a license shall be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

31. Seven recommendations filed by Alaska DF&G on June 8, 2011 are considered to be recommendations filed pursuant to section 10(a). These recommendations are for: a Fish Monitoring Plan (Ordering Paragraph (F)), a Reservoir Inundation Plan (Article 413), an Erosion and Sediment Control Plan (Article 407), and a Bear Safety Plan (Article 414). Alaska DF&G also recommends the licensee hire an environmental compliance monitor (4(e) condition 20), allow reasonable access to agents or employees of Alaska DF&G (Article 412), and restrict road access and land use to protect wildlife (Article 415). As discussed in the final EA, each of these recommendations would help avoid and/or minimize the environmental effects of the license amendment and are adopted in this order as noted above. Adoption of these recommendations helps ensure that the project remains best adapted to a comprehensive plan for the use of the waterway.

Comprehensive Plans

32. Section 10(a)(2)(A)¹⁴ of the FPA requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving waterways affected by the project.¹⁵ Five plans address resources relevant to the Blue Lake Project.¹⁶ No conflicts were found.

¹³ 16 U.S.C. § 803(a)(1) (2006).

¹⁴ 16 U.S.C. § 803(a)(2)(A) (2006).

¹⁵ Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2011).

¹⁶ See section 5.4 of the final EA for a complete list of all relevant comprehensive plans.

Applicant's Plans and Capabilities

A. Conservation Efforts

33. Section 10(a)(2)(C) of the FPA requires the Commission to consider the electricity consumption improvement program of the applicant, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost effectively, taking into account the published policies, restriction, and requirements of state regulatory authorities. The project provides power directly to the City of Sitka's municipal electrical system.

34. The licensee's electric system is an isolated electric utility with no interconnection to other systems and the City of Sitka must supply the power needs of its customers with its own generating resources. The licensee provides energy use reduction tips to its customers, informs them of rebates available from the state of Alaska for reducing the energy loss of their homes, and has taken efforts to improve its own energy efficiency. We conclude that, given its efforts to persuade its customers to reduce energy usage and improve efficiency, the licensee complies with section 10(a)(2)(C) of the FPA.

B. Safe Management, Operation, and Maintenance of the Project

35. Commission staff has reviewed the licensee's management, operation and maintenance of the Blue Lake Project pursuant to the requirements of 18 C.F.R. Part 12 of the Commission's regulations and the Commission's Engineering Guidelines and periodic Independent Consultant Safety Inspection Reports. Although the licensee has a history of safely managing the project, to ensure continued safe operation, Article 305 requires the licensee to file a description of its dam safety program and Article 306 requires the filing of a flooding and spillway adequacy report. In addition, to protect any visitors and recreationists that may use the project area, Article 307 requires the licensee to prepare and file a revised Public Safety Plan. We have determined that the amendment application, which includes the dam raise and additional generation capacity, with the measures described above, should not prevent the licensee from safely managing, operating, and maintaining the project.

Project Economics

36. In determining whether to grant this license amendment which would increase the project's total installed capacity, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corporation*,¹⁷ the Commission uses current costs to compare the costs of the project and

¹⁷ 72 FERC ¶ 61,027 (1995).

likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license amendment issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license amendment.

37. Commission staff applied this analysis to the proposed Blue Lake amendment application. The proposed changes would result in an increase in annual generation of approximately 32,000 megawatt-hours (MWh). When the estimate of average annual generation is multiplied by the regional estimated alternative energy value of \$350/MWh,¹⁸ the total value of the project's additional energy would be \$11,200,000 annually. As proposed by the licensee with staff recommended measures and mandatory conditions, the levelized annual cost of implementing the proposed actions would be \$8,573,000. To determine whether the proposal is economically beneficial, the proposal's cost is subtracted from the value of the energy gains. Therefore, the net benefit of the licensee's proposal, including total capital costs and generation benefits, would be approximately \$2,627,000 annually.

Comprehensive Development

38. Sections 4(e) and 10(a)(1) of the FPA,¹⁹ require the Commission to give equal consideration to power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment would be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to issue this license amendment, and the terms and conditions included herein, reflect such consideration.

39. The final EA for the licensee's proposal contains background information, analysis of impacts, and support for related license articles. The project would be safe if operated and maintained in accordance with the requirements of this license.

40. Based on staff's independent review and evaluation of the project, recommendations from resource agencies, section 4(e) conditions, and the no-action alternative, as documented in the final EA, we have selected the licensee's proposal, with

¹⁸ The estimated alternative energy value is based on information from the licensee's amendment application.

¹⁹ 16 U.S.C. §§ 797(e) and 803(a)(1) (2006).

the staff-recommended measures, and find that it is best adapted to a comprehensive plan for improving or developing Sawmill Creek.

41. We selected this alternative because: (1) issuance of the amendment would serve to maintain a beneficial and dependable source of electric energy; (2) the project, with an increased installed capacity of 16,900 kW, would eliminate the need for an equivalent amount of fossil fuel produced energy and capacity, which helps conserve these nonrenewable resources and decreases atmospheric pollution; and (3) the proposed and staff-recommended environmental measures would protect project resources.

Administrative Conditions

A. Annual Charges

42. The Commission collects annual charges from licensees for administration of Part I of the FPA and for the use, occupancy and enjoyment of federal lands. With the modifications proposed by the licensee, the total authorized capacity of the project would change from 7,540 to 16,900 kW. Therefore, Article 201 of the license will need to be revised accordingly. In accordance with the Commission's regulations for a municipal licensee, the effective date for the purpose of annual charges will be the date operation of the new equipment commences.²⁰ As such, Article 206 will require the licensee to file a report notifying the Commission of the date the authorized additional capacity comes online.

B. Project Description

43. The licensee submitted, with its November 23, 2010 amendment application, revised sections two and three of the Exhibit A that describes the project. The revised sections of the Exhibit A conform to the Commission's rules and regulations and are approved in ordering paragraph (C).

C. Exhibit Drawings

44. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Eleven revised Exhibit F drawings were included in the application showing the expanded impoundment, dam raise, new intake tunnel, surge chamber, and amended powerhouse. The licensee also filed eight revised Exhibit G drawings showing the revised project boundary. Staff has reviewed these Exhibit F and G drawings submitted by the licensee and determined that they conform to the Commission's regulations and will be approved by ordering paragraph (G). Article 205

²⁰ 18 C.F.R. § 11.1(d)(6) (2011).

will require the licensee to file the approved drawings in electronic and aperture card format. Several of the drawings include color and, although we are approving the exhibits in this order, we are requiring that the drawings be converted to black and white before being submitted in aperture card and electronic format.

45. In addition, Article 304 requires the licensee to submit as-built Exhibits A, F and G, as appropriate, to reflect the construction of the facilities approved in this order, within 90 days following the completion of construction activities.

D. Review of Final Plans and Specifications

46. Article 303 requires the licensee to provide the Commission's Division of Dam Safety & Inspections-Portland Regional Office (D2SI-PRO) with final contract drawings and specifications – together with a supporting design report consistent with the Commission's engineering guidelines. Article 302 requires the licensee to provide the Commission's D2SI-PRO with cofferdam construction drawings.

Environmental Assessment

47. The final EA prepared for the licensee's proposal contains background information, analysis of impacts, and support for related license articles and ordering paragraphs. In the final EA, Commission staff recommends the licensee develop and implement a Revegetation Plan, a Project Mitigation and Monitoring Plan, a Noxious Weed Management Plan, a Construction Water Quality Monitoring Plan, a long-term Water Quality Monitoring Plan, and a Rehabilitation Plan. Commission staff also recommends the licensee incorporate Forest Service 4(e) conditions to modify the proposed Erosion and Sediment Control Plan, designate a qualified environmental compliance monitor, provide access for the Alaska DF&G staff, monitor the effects of the dam raise on fish populations, and formally evaluate the historic corduroy road for eligibility on the National Register of Historic Places. These measures are incorporated into this license amendment. Implementation of these measures along with those proposed by the licensee should ensure that the proposed action would not have any significant impacts to environmental resources at the project.

Conclusion

48. Commission staff concludes that the proposed amendment for the Blue Lake Project, with the mitigation measures required by this order, would not constitute a major federal action significantly affecting the quality of the human environment. Therefore, the amendment application will be granted, as considered herein.

The Director orders:

(A) The license for the Blue Lake Project, FERC No. 2230, is amended as provided by this order, effective the day this order is issued.

(B) Ordering paragraph (B)(2) of the license is revised, in part, to read as follows:

The Blue Lake Development includes: (1) a 294-foot-high, 256-foot-long concrete arch dam equipped with a 140-foot-long spillway and a release valve at the base of the dam; (2) a 1,589-acre reservoir (Blue Lake) with a normal water surface elevation of 425 feet mean sea level (msl); (3) a 7,110-foot-long power conduit consisting of: (a) an 11.5-foot-diameter, 1,500-foot-long upper tunnel; (b) an 84-inch-diameter, 460-foot-long penstock; (c) a 10-foot-diameter, 4,650-foot-long lower tunnel; (d) a 20-foot-diameter underground surge chamber vented to the atmosphere at an elevation of 465 feet msl; (e) a 108-inch-diameter, 500-foot-long penstock with a 36-inch-diameter tap; (4) a powerhouse containing three 5,300- kilowatt (kW) generating units;...

The Fish Valve Unit which includes:... (3) a powerhouse containing one 1,000 kW generating unit;...

The paragraph beginning, “The Pulp Mill Feeder Unit...” is removed from the license.

(C) The Exhibit A, sections two and three, filed with the amendment application on November 23, 2010, superseding the previous Exhibit A, is approved and made part of the license.

(D) The license is subject to the conditions submitted by the U.S. Forest Service on June 7, 2011, under section 4(e) of the Federal Power Act, as those conditions are set forth in Appendix A to this order.

(E) Article 201 of the license is revised, in part, to read as follows:

...(1) reimbursing the United States for the cost of administration of Part I of the Federal Power Act, the authorized installed capacity for that purpose is as follows:

- a. 7,540 kilowatts based on the authorized and currently existing capacity.
- b. 16,900 kilowatts upon commencement of operation of the additional capacity authorized in this order.

(2) recompensing the United States for use, occupancy, and enjoyment of 1,773 acres of its lands (other than for transmission line right-of-way); and

(3) recompensing the United States for use, occupancy, and enjoyment of 25.1 acres of its lands for transmission line right-of-way.

(F) The Fish Monitoring Plan filed October 24, 2011, is approved and shall be implemented and shall include the protocols and requirements outlined in Condition 3 by the Alaska Department of Fish and Game filed June 8, 2011.

(G) The following exhibit drawings filed on November 23, 2010, for the Blue Lake Project conform to the Commission's rules and regulations and are approved and made part of the license. The superseded drawings are deleted from the license. Exhibits F-6, F-7, and F-8, which show the Pulp Mill Feeder Unit, existing powerhouse plan, and existing powerhouse sections, respectively, are removed from the license.

EXHIBIT	FERC DRAWING No.	SUPERSEDED FERC DRAWING No.	FERC DRAWING TITLE
F-4	P-2230-1023	P-2230-1010	Blue Lake Dam Plan and Sections
F-9	P-2230-1024	---	Dam Extension Geometry, Sections, and Left and Right Abutments
F-10	P-2230-1025	---	Blue Lake Reservoir and Area Capacity
F-11	P-2230-1026	---	Intake Tunnel Plan
F-12	P-2230-1027	---	Intake Tunnel Profile
F-13	P-2230-1028	---	Surge Chamber, Adit Tunnel, Plans and Profile
F-14	P-2230-1029	---	Powerhouse Area Site Plan
F-15	P-2230-1030	---	Powerhouse Plan Below El. 37
F-16	P-2230-1031	---	Powerhouse Plan at El. 14.35 and El. 9.75
F-17	P-2230-1032	---	Powerhouse Longitudinal Section
F-18	P-2230-1033	---	Powerhouse Section at Unit 3
G-1	P-2230-1034	P-2230-1015	General Project Map
G-2	P-2230-1035	P-2230-1016	Sitka Transmission line Right-of-Way
G-3	P-2230-1036	P-2230-1017	Sitka Transmission line Right-of-Way
G-4	P-2230-1037	P-2230-1018	Sitka Transmission line Right-of-Way
G-5	P-2230-1038	P-2230-1019	Sitka Transmission line Right-of-Way
G-6	P-2230-1039	P-2230-1020	Blue Lake Hydro
G-7	P-2230-1040	P-2230-1021	Blue Lake Hydro and Fish Valve Unit

EXHIBIT	FERC DRAWING No.	SUPERSEDED FERC DRAWING No.	FERC DRAWING TITLE
G-8	P-2230-1041	P-2230-1022	Blue Lake Reservoir

(H) The license is subject to the following additional articles:

Article 205. Revised Exhibit Drawings. Within 45 days of the date of issuance of this order, the licensee shall file the approved exhibit drawings in aperture card and electronic file formats.

- a) Four sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" x 7-3/8") aperture cards. Prior to microfilming, the FERC Project-Drawing Number (i.e., P-2230-1023, etc) shall be shown in the margin below the title block of the approved drawings. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (i.e., F-4 etc.), Drawing Title, and date of this order shall be typed on the upper left corner of each aperture card (See Figure 1).

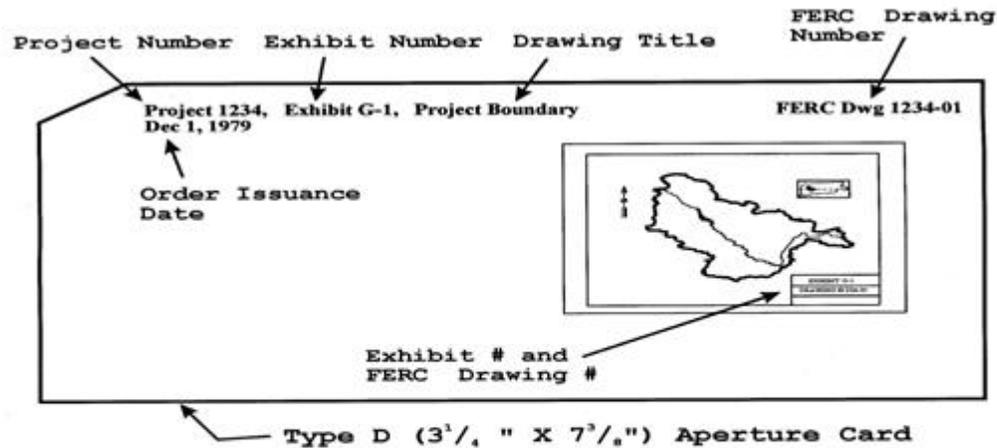


Figure 1 Sample Aperture Card Format

Two of the sets of aperture cards along with form FERC-587 shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Division of Dam Safety and Inspections Portland Regional Office. The remaining set of Exhibit G aperture cards and a copy of Form FERC-587 shall be filed with the Bureau of Land Management office at the following address:

Bureau of Land Management
Division of Alaska Lands (AK-963)
222 W 7th Ave Stop 13
Anchorage, AK 99513-7504

Form FERC-587 is available through the Commission's website at the following URL: <http://www.ferc.gov/docs-filing/forms/form-587/form-587.pdf>. If the form cannot be downloaded from the Internet, a hard copy may be obtained by mailing a request to the Secretary of the Commission.

- b) The licensee shall file two separate sets of exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections Portland Regional Office. Each drawing must be a separate electronic file, and the file name shall include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this order, and file extension in the following format [2230-1023, F-4, Blue Lake Dam Plan and Sections, MM-DD-YYYY.TIF]. Electronic drawings shall meet the following format specification:

IMAGERY - black & white raster file
FILE TYPE – Tagged Image File Format, (TIFF) CCITT Group 4
RESOLUTION – 300 dpi desired, (200 dpi min)
DRAWING SIZE FORMAT – 24” x 36” (min), 28” x 40” (max)
FILE SIZE – less than 1 MB desired

Each Exhibit G drawing that includes the project boundary must contain a minimum of three known reference points (i.e., latitude and longitude coordinates, or state plane coordinates). The points must be arranged in a triangular format for GIS georeferencing the project boundary drawing to the polygon data, and must be based on a standard map coordinate system. The spatial reference for the drawing (i.e., map projection, map datum, and units of measurement) must be identified on the drawing and each reference point must be labeled. In addition, each project boundary drawing must be stamped by a registered land surveyor.

- c) The licensee shall file two separate sets of the project boundary data in a georeferenced electronic file format (such as ArcView shape files, GeoMedia files, MapInfo files, or a similar GIS format) with the Secretary of the Commission, ATTN: OEP/DHAC. The filing shall include both polygon data and all reference points shown on the individual project boundary drawings. A single electronic boundary polygon data file is required for the project boundary. The georeferenced electronic boundary data file must be

positionally accurate to ± 40 feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. The file name(s) shall include: FERC Project Number, data description, date of this order, and file extension in the following format [P-2230, boundary polygon/or point data, MM-DD-YYYY.SHP]. The filing must be accompanied by a separate text file describing the spatial reference for the georeferenced data: map projection used (i.e., UTM, State Plane, Decimal Degrees, etc), the map datum (i.e., North American 27, North American 83, etc.), and the units of measurement (i.e., feet, meters, miles, etc.). The text file name shall include: FERC Project Number, data description, date of this order, and file extension in the following format [P-2230, project boundary metadata, MM-DD-YYYY.TXT].

In addition, for those projects that occupy federal lands, a separate georeferenced polygon file(s) is required that identifies transmission line acreage and non-transmission line acreage affecting federal lands for the purpose of meeting the requirements of 18 CFR §11.2. The file(s) must also identify each federal owner and federal acreage affected by the project boundary. Depending on the georeferenced electronic file format, the polygon, point, and federal lands data can be included in a single file with multiple layers.

Article 206. *Commencement of Operation of Additional Capacity.* The licensee shall file a report stating the date of commencement of operation of the additional authorized capacity, within 15 days of such date. Such commencement date will be the effective date for the annual charges under license Article 201(1)b.

Article 302. *Cofferdam Construction Drawings.* Before starting any removal, construction, or stream restoration activities, the licensee shall review and approve the design of contractor-designed cofferdams and deep excavations and shall make sure construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days before starting construction of the cofferdam, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections (D2SI) – Portland Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Commission's Director, Division of Dam Safety and Inspections), of the approved cofferdam construction drawings and specifications and the letters of approval.

Article 303. *Contract Plans and Specifications.* At least 60 days prior to the start of any construction, the licensee shall submit one copy of U. S. Forest Service approved plans and specifications and any supporting design documents to the Commission's Division of Dam Safety and Inspections (D2SI) – Portland Regional Engineer, and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections). The submittal to the Regional Engineer must also

include as part of preconstruction requirements: a U. S. Forest Service approved Quality Control and Inspection Program and a Temporary Construction Emergency Action Plan.. The licensee may not begin construction until the Regional Engineer has approved in writing the plans and specifications and determined that all preconstruction requirements have been satisfied.

Article 304. *As-Built Drawings.* Within 90 days of completion of construction of the facilities authorized by this license amendment, the licensee shall file for Commission approval, revised exhibits A, F, and G, as applicable, to describe and show these project facilities as built. A courtesy copy shall be filed with the Commission's Division of Dam Safety (D2SI) – Portland Regional Office, the Directory D2SI, and the Director, Division of Hydropower Administration and Compliance.

Article 305. *Owners Dam Safety Program.* Within 90 days of the issuance of this order, the licensee shall submit to the Commission's Division of Dam Safety and Inspections – Portland Regional Engineer, an Owner's Dam Safety Program which at a minimum shall demonstrate a clear acknowledgement of the dam owners responsibility for the safety of the project, an outline of the roles and responsibilities of the licensee's dam safety staff, and access of the licensee's dam safety official to the Chief Executive Officer.

Article 306. *Flood Routing Article.* Within 60 days of the issuance of this order, the licensee shall submit one copy to the Division of Dam Safety and Inspections (D2SI) – Portland Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, D2SI), of a report describing the effects of raising the dam and reservoir level 83 feet on upstream flooding and spillway adequacy. The report shall include a flood routing study that evaluates the ability of the development to safely pass flows up to the Inflow Design Flood. The report at a minimum shall include: (1) a comparison of the frequency that the non-overflow structures would be overtopped under the historical versus proposed reservoir levels; (2) an assessment of any increased likelihood of structures downstream of the dam being flooded under the new reservoir level and new operating scenario; and (3) if necessary, a plan and schedule for performing any remedial measures necessary to ensure the continued safe operation of the development during high flows. The licensee shall not operate the project at the new water levels until the D2SI's Portland Regional Engineer determines that these altered project operations have no adverse impact on dam safety and issues a letter indicating such.

Article 307. *Public Safety Plan.* Within 60 days from the issuance of this order, the licensee shall submit one copy to the Commission's Division of Dam Safety and Inspections (D2SI) – Portland Regional Engineer and two copies to the Commission (one of these copies shall be a courtesy copy to the Director, D2SI) of a revised Public Safety Plan. The revised plan shall include an evaluation of public safety concerns at the project site, including designated recreation areas, and an assessment of any needed safety

devices or other safety measures. The submitted plan should include a description of all public safety devices and signage, as well as a map showing the location of all public safety measures. For additional guidance, the licensee can review the Guidelines for Public Safety at Hydropower Projects on the FERC-D2SI website.

Article 405. Commission Approval and Reporting.

(A) Requirements to File Plans for Commission Approval

The U.S. Forest Service 4(e) conditions (Appendix A) require the licensee to develop certain plans and measures for its approval. These plans and measures shall also be submitted to the Commission for approval. The plans and measures are listed below.

Forest Service 4(e) Condition No.	License Requirement	Due Date
3	Hazardous Substances Plan	30 days prior to ground disturbing activity
16	Safety during Project Construction Plan	60 days prior to ground disturbing activity
19	Project Mitigation and Monitoring Plan	Within 90 days of the date of issuance of this order
21	Noxious Weed Management Plan	Within one year of the date of issuance of this order or 60 days prior to ground disturbing activity
22	Erosion Control Plan	60 days prior to any new construction or non-routine maintenance projects

(B) Requirements to File Documentation of Completion

The licensee shall also file with the Commission documentation of completion or notification of the following activities.

Forest Service 4(e) Condition No.	License Requirement	Due Date
13	Obtain a Forest Service Special Use Authorization	60 days prior to ground disturbing activity
20	Environmental Compliance Monitor	Within 30 days of acceptance of an Environmental Compliance Monitor by the licensee and Forest Service

The licensee shall submit to the Commission documentation of its consultation, copies of comments and recommendations made in connection with the plans and measures identified in paragraph (A) above, and a description of how the plans and measures accommodate the comments and recommendations. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons based on project-specific information. The licensee shall include with each plan filed with the Commission documentation of approval received from the U.S. Forest Service. The Commission reserves the right to make changes to any plan submitted. The plans shall not be implemented until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the plan becomes a requirement of the license, and the licensee shall implement the plan or changes in project operations or facilities, including any changes required by the Commission.

Article 406. Grassland Mitigation and Monitoring. As a component of Forest Service 4(e) Condition No. 19, the licensee shall develop a grassland mitigation measure to mitigate for reductions in grasslands caused by the proposed project. As part of the measure, the licensee shall also develop a monitoring plan to measure natural generation of wetlands around the new high water elevation and develop mitigation measures to ensure wetland functions are restored and the effects on wetlands are minimized.

Article 407. Erosion and Sediment Control Plan. At least 60 days prior to ground disturbing activities, the licensee shall file with the Commission and the Commission's Portland Regional Office, for approval, an Erosion and Sediment Control Plan.

The plan shall include at a minimum:

(1) Identification of site-specific conditions for disturbed, spoils disposal, and stockpile areas; (2) construction and operation related risks; and (3) proposed measures to control runoff and avoid slope failure and sedimentation of water bodies.

The licensee shall prepare the plan after consultation with the U.S. Forest Service, the U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan shall not begin until the licensee is notified by the Commission that the plan is

approved. Upon Commission approval, the licensee shall implement the plan including any changes required by the Commission.

Article 408. *Revegetation Plan.* Within six months of the issuance of this order, the licensee shall file with the Commission, for approval, a Revegetation Plan.

The plan shall include at a minimum:

(1) identification of areas disturbed during construction; (2) a list of native species to be used for planting and/or reseeded; (3) methods of monitoring for successful establishment of native species; (4) criteria for success; and (5) measures for additional plantings, if success criteria are not achieved, to reduce effects of construction on vegetation resources.

The licensee shall prepare the plan after consultation with the U.S. Forest Service, the U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan shall not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan including any changes required by the Commission.

Article 409. *Construction Water Quality Monitoring Plan.* At least 60 days prior to ground disturbing activities, the licensee shall file with the Commission, for approval, a Construction Water Quality Monitoring Plan.

The plan shall identify at a minimum:

(1) exact locations of monitoring sites; (2) water quality parameters to be monitored including but not limited to turbidity and total organic carbon; (3) a frequency of monitoring during all phases of construction which shall be at least daily; and (4) specific measures to be taken in the event that monitoring identifies unacceptable water quality conditions.

The licensee shall prepare the plan after consultation with the U.S. Forest Service, Alaska Department of Fish and Game, Alaska Department of Environmental

Conservation, and the U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan shall not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan including any changes required by the Commission.

Article 410. Long-Term Water Quality Monitoring Plan. At least 60 days prior to ground disturbing activities, the licensee shall file with the Commission, for approval, a Long-Term Water Quality Monitoring Plan.

The plan shall include at a minimum:

(1) identification of all long-term water quality monitoring sites including Blue Lake, the powerhouses, and Sawmill Creek; (2) the specific water quality parameters to be monitored at each site, including but not limited to turbidity and total organic carbon; (3) the frequency of monitoring at each location which shall be at least weekly as well as the duration of monitoring during the term of the license; and (4) identification of specific measures to be taken in the event that monitoring indicates problems with water quality at the project.

The licensee shall prepare the plan after consultation with the U.S. Forest Service, Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, and the U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan shall not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan including any changes required by the Commission.

Article 411. Rehabilitation Plan. Within 6 months of the issuance of this order, the licensee shall file, for Commission approval, a Rehabilitation Plan that describes the ultimate function for the project facilities that will no longer serve a project purpose as part of this proposal (i.e., Blue Lake Unit Powerhouse, Pulp Mill Feeder Unit, existing lower penstock site, etc.). The plan shall describe the new purpose of the facility, or, in the case the decommissioned facility is to be removed, the plan shall describe the schedule and method of demolition as well as provisions for regrading, revegetation, and restoration of the lands to natural conditions.

The licensee shall prepare the plan after consultation with the U.S. Forest Service, the Alaska Department of Fish and Game, and the U.S. Fish and Wildlife Service. The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan shall not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan including any changes required by the Commission.

Article 412. Project Access. The licensee shall provide free and unrestricted access to, through, and across project lands and project works to duly certified representatives of the Alaska Department of Fish and Game after appropriate advance notice is made.

Article 413. Reservoir Inundation Plan. At least 60 days prior to ground disturbing activity, the licensee shall file with the Commission, for approval, a Reservoir Inundation Plan. The Plan shall include detailed information on floating material and debris management methods, a reservoir inundation management schedule, and a municipal water quality monitoring program. Water quality monitoring shall include an interval for monitoring disinfection by-products and methylmercury in the licensee's treated municipal water system.

The licensee shall prepare the plan after consultation with the U.S. Forest Service, the U.S. Fish and Wildlife Service, the Alaska Department of Environmental Conservation, and the Alaska Department of Fish and Game. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations to the plan. The licensee shall include with the plan documentation of agency consultation,

copies of agency comments and recommendations on the plan, and specific descriptions of how the agencies' comments are accommodated by the licensee's plan. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to require changes to the proposed plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission

Article 414. Bear Safety Plan. At least 60 days prior to beginning construction on the project, the licensee shall file with the Commission, for approval, a Bear Safety Plan. The Plan shall include a bear safety orientation session for contractor personnel that addresses conflict minimization and encounter procedures, on-site solid waste management, any permitted recreational activities for contractor personnel, and procedures on how to handle bear conflicts and report them to the Alaska Department of Fish and Game.

The licensee shall prepare the plan after consultation with the U.S. Forest Service, the U.S. Fish and Wildlife Service, and the Alaska Department of Fish and Game. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations to the plan. The licensee shall include with the plan documentation of agency consultation, copies of agency comments and recommendations on the plan, and specific descriptions of how the agencies' comments are accommodated by the licensee's plan. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to require changes to the proposed plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission

Article 415. Access Control Plan. At least 60 days prior to ground disturbing activities, the licensee shall file with the Commission, for approval, an Access Control Plan. The licensee shall develop a plan to control potential expansion of recreation access to the elevated Blue Lake and its shoreline.

The licensee shall prepare the plan after consultation with the U.S. Forest Service, the U.S. Fish and Wildlife Service, the Alaska Department of Environmental Conservation, and the Alaska Department of Fish and Game. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations to the plan. The licensee shall include with the plan documentation of agency consultation, copies of agency comments and recommendations on the plan, and specific descriptions of how the agencies' comments are accommodated by the licensee's plan. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to require changes to the proposed plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 416. Wildlife Disturbance Avoidance Plan. Within 90 days of the issuance of this order, the licensee shall file with the Commission, for approval, a Wildlife Disturbance Avoidance Plan. This Plan shall describe measures taken to minimize wildlife disturbance, primarily through accommodations in seasonal and daily work scheduling.

The licensee shall prepare the plan after consultation with the U.S. Forest Service, the U.S. Fish and Wildlife Service, and the Alaska Department of Fish and Game. The licensee shall allow a minimum of 30 days for the agencies to comment and make recommendations to the plan. The licensee shall include with the plan documentation of agency consultation, copies of agency comments and recommendations on the plan, and specific descriptions of how the agencies' comments are accommodated by the licensee's plan. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to require changes to the proposed plan. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

(I) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

(J) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 8251 (2006), and the Commission's regulations at 18 C.F.R. § 385.713 (2011). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Steve Hocking
Chief, Environmental Review Branch
Division of Hydropower Administration
and Compliance

APPENDIX A**U.S. Department of Agriculture, Forest Service
4(e) Terms and Conditions
Filed June 7, 2011****General**

License articles contained in the Federal Energy Regulatory Commission's (Commission) Standard Form L-1 issued by Order No. 540, dated October 31, 1975, cover those general requirements that the Secretary of Agriculture, acting by and through the USDA Forest Service, considers necessary for adequate protection and utilization of the land and related resources of the Tongass National Forest. Under authority of section 4(e) of the Federal Power Act (16 U.S.C. 797(e)), the following terms and conditions are deemed necessary for adequate protection and utilization of Tongass National Forest lands and resources. These terms and conditions are based on those resources enumerated in the Organic Administration Act of 1897 (30 Stat. 11), the Multiple-Use Sustained Yield Act of 1960 (74 Stat. 215), the National Forest Management Act of 1976 (90 Stat. 2949), and any other law specifically establishing a unit of the National Forest System or prescribing the management thereof (such as the Wilderness Act or Wild and Scenic Rivers Act), as such laws may be amended from time to time, and as implemented by regulations and approved Land and Resources Management Plans prepared in accordance with the National Forest Management Act. Therefore, pursuant to section 4(e) of the Federal Power Act, the following conditions covering specific requirements for protection and utilization of the National Forest System lands shall also be included in any license amendment issued for the Blue Lake Hydroelectric Project.

USDA Forest Service Terms and Conditions

Appendix A of the July 10, 2007 License Order for the Blue Lake Hydroelectric Project contains Forest Service Final 4(e) conditions 1 through 12, which are also applicable to this Amendment. Therefore, we have begun numbering the 4(e) conditions for this Amendment with 13.

- Condition No. 13 -- Requirement to Obtain a Forest Service Special-Use Authorization
- Condition No. 14 -- Forest Service Approval of Final Design
- Condition No. 15 -- Traffic Safety
- Condition No. 16 -- Safety During Project Construction
- Condition No. 17 -- Implementation and Modification of Forest Service Conditions
- Condition No. 18 -- Modifications of 4(e) Conditions after Biological Opinion or Certification
- Condition No. 19 -- Project Mitigation and Monitoring Plan

Condition No. 20 -- Environmental Compliance Monitor
Condition No. 21 -- Noxious Weed Management Plan
Condition No. 22 -- Erosion Control Plan

Condition No. 13 - Requirement to Obtain a Forest Service Special-Use Authorization

The Licensee shall obtain a special-use authorization from the Forest Service for the occupancy and use of National Forest System lands. The licensee shall obtain the executed authorization before beginning ground-disturbing activities on National Forest System lands and within one year of amendment issuance.

The Licensee may commence ground-disturbing activities authorized by the Amendment and special-use authorization no sooner 60 days following the date the licensee files the Forest Service special-use authorization with the Commission, unless the Commission prescribes a different commencement schedule.

In the event there is a conflict between any provisions of the license and Forest Service special-use authorization, the special-use authorization shall prevail to the extent that the Forest Service, in consultation with the Commission, deems necessary to protect and utilize National Forest System resources.

Rationale

The Energy Policy Act of October 24, 1992 (106 Stat. 2776; 43 U.S.C. 1761(d)) amended section 501 of the Federal Land Policy and Management Act (FLPMA) of October 21, 1976 by providing that Forest Service special use authorizations are required for the continued operation of projects licensed by FERC as of October 24, 1992, if additional National Forest System lands are proposed to be added to the licensed project area.

Condition No. 14 - Forest Service Approval of Final Design

Prior to undertaking activities on National Forest System lands, the Licensee shall obtain written approval from the Forest Service for all final design plans for project components that the Forest Service deems as affecting or potentially affecting National Forest System lands and resources. As part of such prior written approval, the Forest Service may require adjustments in final design plans and facility locations to preclude or mitigate impacts and to assure that the project is compatible with on-the-ground conditions. Should the Forest Service, the Commission, or the Licensee determine that necessary changes are a substantial change; the Licensee shall follow the procedures of Article 2 of the license. Any changes to the license made for any reason pursuant to Article 2 or

Article 3 shall be made subject to any new terms and conditions the Secretary of Agriculture may make pursuant to section 4(e) of the Federal Power Act.

Rationale

This condition addresses the Forest Service's concerns for operation and maintenance of the Licensee's improvements as they may affect NFS lands and compliance with Federal, State, and local laws and regulations. Including this standard condition insures that Project operations are consistent with these requirements.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed land use designation management prescriptions and the standards and guidelines for Facilities (FAC3), Fish (FISH2), Recreation and Tourism (REC2), Scenery (SCENE1), Soil and Water (SW3), and Wetlands (WET).

Condition No. 15 - Traffic Safety

When construction is in progress adjacent to or on Forest Service controlled roads open to public travel, the Licensee shall furnish, install, and maintain temporary traffic controls to provide the public with adequate warning and protection from hazardous or potentially hazardous conditions associated with the Licensee's operations. Devices must be appropriate to current conditions and must be covered or removed when not needed.

Rationale

It is essential that the Licensee be required to take measures to protect against damage, injury, death, risks and hazards associated with use of the Blue Lake Road (NFSR 5755) during project construction. This standard condition requires the Licensee to seek out and eliminate, or minimize risks associated with their activities and thus protect the public interests.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Forest-wide standards and guidelines for Transportation (TRAN2).

Condition No. 16 - Safety During Project Construction

Within 60 days of ground-disturbing activity, the Licensee shall file with the Commission a Safety During Construction Plan that has been approved by the Forest Service and identifies potential hazard areas and measures necessary to protect public safety. Areas to consider include construction activities near public roads, trails, recreation areas, and facilities.

The Licensee shall perform daily (or on a schedule otherwise agreed to by the Forest Service in writing) inspections of Licensee's construction operations on National Forest System lands and Licensee adjoining fee title property while construction is in progress. The Licensee shall document these inspections (informal writing sufficient) and shall deliver such documentation to the Forest Service on a schedule agreed to by the Forest Service. The Licensee shall act immediately to correct any items found to need correction.

Rationale

While unlikely, there is a possibility that construction activities could be responsible for damage, injury, or death. It is appropriate for the Licensee and not the Forest Service, to protect against damage, injury, death, risks and hazards associated with the use and/or occupation of NFS lands authorized by the Project amendment. It is essential that the Licensee be required to take measures to minimize this risk to Federal lands and human life. This condition provides an incentive to the Licensee to seek out and eliminate, or minimize risks associated with the construction activities and thus protect the public interests.

Condition No. 17 – Implementation and Modification of Forest Service Conditions

(Applies only to issuance of Special Use Permit)

The Forest Service reserves the authority to modify Forest Service 4(e) terms and conditions if upon completion of the Forest Service administrative appeals process at 36 Code of Federal Regulations (CFR) Part 251, the Chief, USDA Forest Service, or Secretary of Agriculture directs that substantial changes to the terms and conditions submitted herein be made.

Rationale

This license condition is necessary for compliance with the Forest Service administrative appeals process at 36 Code of Federal Regulations (CFR) Part 251.

Condition No. 18 - Modifications of 4(e) Conditions after Biological Opinion or Certification

The Forest Service reserves the right to modify these conditions, if necessary, to respond to any Final Biological Opinion issued for this Project by the National Marine Fisheries Service, United States Fish and Wildlife Service; or any Certification issued for this Project by the State of Alaska.

Rationale

This license condition provides protection for forest resources on NFS land by requiring modifications if environmental requirements change due to actions by other agencies.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed and Semi-Remote Recreation land use designation management prescriptions and the forest-wide standards and guidelines for Fish (FISH2, FISH3), Soil and Water (SW3), Wetlands (WET), and Wildlife (WILD1).

Condition No. 19 – Project Mitigation and Monitoring Plan

The Licensee, in consultation with the Forest Service and interested stakeholders, will develop a Project Mitigation and Monitoring Plan (Plan) within 60 days after amendment issuance. The Plan shall include detailed descriptions of the mitigation and monitoring measure(s), implementation schedules (including public notification strategy), and detailed steps for planning, design, construction, etc. of the approved measure(s). Additionally, the Plan shall provide a mechanism for the Licensee and the Forest Service to meet periodically to review/modify the implementation schedule of these measures. Once approved by the Forest Service, the Licensee shall file the final Plan, including evidence of consultation, with the Commission and shall implement those measures approved by the Commission.

It is anticipated that certain details of the environmental monitoring (e.g., specific years of sampling and/or specific study sites) may need modification during development of detailed study plans or during subsequent implementation of the environmental monitoring. All such modifications shall be developed in consultation with the Forest Service and stakeholders and approved by these agencies and provided to the Commission before implementation.

Rationale

The Forest Service has an obligation under various laws, regulations and the Forest Plan to protect, mitigate and monitor for impacts documented in the License amendment reports and NEPA document. Implementation of the measures recommended and approved in this Plan will aid in protecting forest resources from known and future project impacts.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed and Semi-Remote Recreation land use designation management prescriptions and the standards and guidelines for Facilities (FAC3), Fish (FISH2,

FISH3), Recreation and Tourism (REC2), Scenery (SCENE1), Soil and Water (SW3), Wetlands (WET), and Wildlife (WILD1).

Condition No. 20 - Environmental Compliance Monitor

To ensure adherence to license conditions, mitigative measures, and other environmental aspects of project construction, including those stated in each management and mitigation plan, the Forest Service will require the licensee to provide a qualified environmental compliance monitor to oversee the project during construction activities (e.g., vegetative or land disturbing, or spoil producing activities). The compliance monitor will be a liaison between the Forest Service and Licensee. The compliance monitor should be a third party contractor independent of the licensee or agency, subject to approval for both the Licensee and the Forest Service. The compliance monitor will have the authority to stop work or issue change orders in the field should conditions so warrant. Once major construction activities are completed the compliance monitor will no longer be needed.

Rationale

It is essential that the Licensee ensure adherence to license conditions, mitigation measures, and environmental requirements of project construction. This license condition provides protection for resources on NFS lands by requiring an independent compliance monitor to observe and, if necessary, intervene during major construction activities.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed and Semi-Remote Recreation land use designation management prescriptions and the standards and guidelines for Facilities (FAC3), Fish (FISH2, FISH3), Invasive Species (INV1, INV3), Plants (PLA2), Recreation and Tourism (REC2), Scenery (SCENE1), Soil And Water (SW3), Wetlands (WET), and Wildlife (WILD1).

Condition No. 21 - Noxious Weed Management Plan

Within one year of amendment issuance or prior to any ground-disturbing activity, the Licensee shall file with the Commission a Noxious Weed Management Plan that is approved by the Forest Service. At a minimum the Plan shall:

- Identify methods for prevention and control of noxious weeds.
- Develop a monitoring program to evaluate the effectiveness of noxious weed control measures, and

- Develop procedures for identification of additional measures that the licensee shall implement if monitoring reveals that noxious weed control is not successful or does not meet intended objectives.

Rationale

This condition provides for the protection of forest resources by reducing the likelihood that terrestrial and aquatic invasive species and noxious weeds will be introduced as a result of project activities.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed and Semi-Remote Recreation land use designation management prescriptions and the standards and guidelines for Invasive Species (INV1, INV3), Plants (PLA2).

Condition No. 22—Erosion Control Plan

During planning and before any new construction or non-routine maintenance projects with the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands, the Licensee shall file with the Commission an Erosion Control Measures Plan that has been approved by the Forest Service. The Plan shall include measures to control erosion, stream sedimentation, and soil mass movement. The plan shall be based on actual-site geological, soil, and groundwater conditions.

Rationale

Project construction activities, operation and non-routine maintenance projects have the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands. This license condition provides protection for forest resources on NFS land by requiring preventative measures to control erosion.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed and Semi-Remote Recreation land use designation management prescriptions and the standards and guidelines for Fish (FISH2, FISH3), Soil and Water (SW3), Wetlands (WET).