

UNITED STATES OF AMERICA 81 FER C ¶62,172  
FEDERAL ENERGY REGULATORY COMMISSION

Consolidated Hydro Maine, Inc. )

Project No. 11163-000

ORDER ISSUING LICENSE  
(MINOR PROJECT)

December 9, 1997

## INTRODUCTION

On June 28, 1991, Consolidated Hydro Maine, Inc. filed an application with the Federal Energy Regulatory Commission (Commission) for an original license to continue to operate and maintain the unlicensed 1.2-megawatt (MW) South Berwick Hydroelectric Project, located on the Salmon Falls River in the towns of South Berwick, York County, Maine, and Rollinsford, Strafford County, New Hampshire.<sup>1</sup> On September 26, 1996, Consolidated Hydro Maine, Inc. filed for an amendment of license to change the name of the applicant from Consolidated Hydro Maine, Inc. to Consolidated Hydro New Hampshire, Inc. (CHNHI or applicant).

## BACKGROUND

The Commission issued a public notice of CHNHI's application for original license on February 5, 1992. The State of Maine, State Planning Office, filed an untimely motion to intervene in this proceeding on April 27, 1992. This motion to intervene was unopposed. The motion is not in opposition to the project and has been granted.

The United States Environmental Protection Agency (EPA), Region 1, also filed an untimely motion to intervene in this proceeding on August 18, 1997. CHNHI filed an objection to this motion to intervene on September 2, 1997. The motion is not in opposition to the project and was granted on September 10, 1997.

The Commission issued a Notice of Application Ready for Environmental Analysis (REA) on February 9, 1993. Comment letters on the REA received prior to the April 12, 1993, deadline specified in this public notice were filed by the State of New Hampshire, Fish and Game Department dated March 31, 1993; State of Maine, Department of Environmental Protection dated April 2, 1993; U.S. Department of the

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<sup>1</sup> / The project has been owned and operated by Consolidated Hydro Maine, Inc. since 1986. The Salmon Falls River is a navigable waterway of the United States for its entire length (Spaulding Fiber Company, EL78-41, 12 FER C ¶ 61,028, July 9, 1980). On September 30, 1988, the Director, Office of Hydropower Licensing (OHL) issued an Order Finding Hydroelectric Project Jurisdiction for the South Berwick Project under Section 23(b) of the Federal Power Act (FPA). The Director determined that, because the project is located on a navigable waterway of the United States, the project requires a license to continue to operate. See 44 FER C ¶ 62,345.

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Interior dated April 5, 1993; and the State of Maine, State Planning Office dated April 8, 1993. CHNHI responded to these comments by letter dated June 3, 1993.

The Commission's staff issued the South Berwick Hydroelectric Project draft Environmental Assessment (DEA) for public comment on February 23, 1995. In response, comment letters were received from the State of New Hampshire, Fish and Game Department dated March 29, 1995; State of New Hampshire, Department of Environmental Services dated April 6, 1995; U.S. Environmental Protection Agency dated April 6, 1995; U.S. Department of the Interior, Fish and Wildlife Service dated April 7, 1995; and CHNHI dated April 21, 1995. These comments have been considered in preparing the final Environmental Assessment (EA) which is attached to this order.

The Commission's staff issued the South Berwick Hydroelectric Project EA on December 23, 1996. A letter was filed by CHNHI dated February 4, 1997, which requested a conference to discuss the economic analysis contained in the EA. This conference was held on July 1, 1997.

A. Project Description

The South Berwick dam was originally constructed in 1831. In 1923, the project was redeveloped and the existing powerhouse was constructed. The current project consists of: (1) a concrete gravity dam with a concrete spillway section, which uses wooden flashboards; (2) an impoundment that is about 1 mile long and contains 116 acrefeet of usable storage; (3) a concrete intake structure consisting of three headgates that lead to three penstocks and two sluice gates; (4) a powerhouse housing three turbine units; and (5) appurtenant facilities. CHNHI plans capital improvements to the project including turbine-generator rehabilitation, utility protection upgrade, dam repairs and penstock repairs. These improvements will increase annual project generation. A more detailed project description can be found in ordering paragraph (B)(2).

The total rated capacity of the three turbine-generators is 1,200 kilowatts (kW). The project's hydraulic range varies from 50 to 885 cubic feet per second (cfs). The project presently operates in a manual run-of-river mode most of the time, matching inflows from upstream projects as closely as possible. During periods of low flow, the project operates as a modified peaking project (12 inch elevation drop in the summer and fall and up to 24 inches in the winter to manage ice and protect against flashboard failure). CHNHI proposes to continue this mode of operation. There are no primary transmission lines included in this project.

CHNHI does not own, operate, or maintain any recreation facilities within the project boundaries, but does allow recreationists to cross its property to gain access to the river below the project. Access for water-based recreation on the project impoundment is available at a public boat launch and parking area on Foundry Street in Rollinsford. There is also a dirt road and paths that allow access to the tailrace area.

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CHNHI proposes to transfer land to the town of South Berwick for the development of a park below the project.

B. Water Quality Certification

Section 401(a)(1) of the Clean Water Act (CWA)<sup>2</sup> requires an applicant for a federal license or permit for any activity that may result in a discharge into navigable waters of the United States to provide to the licensing or permitting agency certification from the state in which the discharge originated that such discharge will comply with certain sections of the CWA. If a state fails to act on a request for certification within one year, the certification requirement is waived.<sup>3</sup> Section 401(d) of the CWA<sup>4</sup> provides that state certifications shall set forth conditions necessary to ensure that applicants comply with specific portions of the CWA and with appropriate requirements of state law.

The Salmon Falls River forms the boundary between the states of New Hampshire and Maine, but the project tailrace and intake are on the Maine bank of the river. Thus, the Maine Department of Environmental Protection (MDEP) is responsible for issuing the 401 Water Quality Certificate (WQC) for this project.<sup>5</sup>

On July 9, 1991, MDEP received CHNHI's original application for a WQC. CHNHI subsequently withdrew and refiled its application on July 6, 1992; June 23, 1993; and again on June 8, 1994. On May 25, 1995, MDEP issued an order granting Water Quality Certification for the project.

MDEP's WQC for the South Berwick Project lists items labeled "1" through "8." These conditions are presented in their entirety in Appendix A. My findings regarding these conditions follow.<sup>6</sup>

Condition 1 requires CHNHI to operate their upstream Lower Great Falls Project

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2 / 33 U.S.C. § 1341.

3 / 33 U.S.C. § 1341 (a) (1).

4 / 33 U.S.C. § 1341 (d)

5 / The New Hampshire Department of Environmental Services(NHDES) (supported by the U.S. Environmental Protection Agency) claims that it also has authority to issue a water quality certificate for this project because water is sometimes discharged over the crest of the dam, half of which is in New Hampshire. This issue has become moot, however, because NHDES failed to act on CHNHI's application for certification within the one-year time period set forth in Section 401. In any event, I am requiring run-of-river, stable pond operation of the project, and tailrace water quality monitoring, which were conditions in NHDES' draft water quality certification.

6 / See Great Northern Paper, Inc., 77 FERC ¶ 61,068 at pp. 61,271-73 (1996).

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and the South Berwick Project discharging a minimum flow of 44 cfs or inflow, whichever is less. During the period from June 1 to September 30, when the 3-day running average of water temperature times river flow duration is greater than 1,500, this condition requires that the Lower Great Falls, Rollinsford, and South Berwick Projects be operated in a run-of-river mode. Additionally, this condition requires monitoring and reporting of flow data. Staff considered the requirements for minimum flows and monitoring, and recommended that the license be conditioned to include flows and monitoring plans that meet MDEP's goals. Article 402 of this license requires the project to operate in run-of-river mode.<sup>7</sup> Article 405 of this license requires a plan for monitoring and reporting of minimum flows.

Condition 2 requires CHNHI to submit a plan to monitor temperature and flows in the Salmon Falls River. Article 405 of the license requires CHNHI to monitor flows at the project. In addition, Article 406 of the license requires CHNHI to develop, in consultation with the state, a plan for dissolved oxygen (DO) and temperature monitoring at the project. This plan is to be filed with the Commission, for approval.

Condition 3 requires CHNHI to maintain the impoundment within 1 foot of full pond elevation (24.95 feet mean sea level [msl]), except when the product of the 3-day average of temperature times flow duration is greater than 1,500, at which time the project will be operated in a strict run-of-river mode during the period from June 1 through September 30. From October 1 through May 31, the project is to be operated so that the impoundment water level remains within 2 feet of full pond elevation of 24.95 feet msl. Staff's recommendations for stable pond management and run-of-river operation would be more restrictive than the impoundment levels required by this condition. Article 403 requires stable pond operation between May 1 and October 31 of each year. Article 404 requires development and implementation of a plan for stable pond operation during the rest of the year, including the winter season.

Condition 4 requires that CHNHI transfer land to the town of South Berwick to assist in the development of a park downstream of the powerhouse and assist the town of Rollinsford, New Hampshire, with the repair of the existing boat launch site on Foundry Street. Staff concluded that the development of the park and repair of the Rollinsford boat launch are necessary. CHNHI is ultimately responsible, however, for developing and maintaining these facilities. Article 410 of this license requires CHNHI to repair or rebuild the boat launch on the impoundment, and Article 411 requires that CHNHI develop and maintain the park downstream of the project.

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<sup>7</sup> / The run-of-river operation at the South Berwick Project required by Article 402 would provide flows in excess of those required by MDEP in this condition. Therefore, while we do not adopt the specific minimum flow recommendation contained in Condition 1, run-of-river operation would provide greater benefits to water quality and aquatic habitat than sought by MDEP in the WQC.

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Condition 5 requires that upstream and downstream fish passage facilities be installed and operated at the South Berwick Project within 3 years following the adoption of a formal anadromous fish restoration plan for the Salmon Falls River by the Maine Department of Marine Resources. Staff concluded that the immediate development of fish passage facilities at the South Berwick Project would enhance the existing coastal bait fish industry and provide benefits in terms of prey for gamefish. Therefore, I have included Articles 407 and 408 in the license to require development of both downstream and upstream passage facilities.

As discussed in the Commission order issuing a license for the Moosehead Project (FERC Project No. 2671)<sup>8</sup>, we are required by the recent decision of the United States Court of Appeals in American Rivers, et al. v. FERC<sup>9</sup> to include all conditions in a water quality certificate as conditions on a license even if we believe that the conditions may be outside the scope of Section 401. While I have included certain of these conditions as license articles, all of the Section 401 conditions are conditions to this license. In any event, nothing in the conditions of the water quality certification shall be viewed as restricting the Commission's ability or the licensee's obligation, under the Federal Power Act, to take timely action necessary to protect human life, health, property, or the environment.

## COASTAL ZONE MANAGEMENT

The South Berwick Project is located within the state- designated Coastal Zone Management area in Maine and New Hampshire. Under Section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), 16 U.S.C. § 1456(3)(A), 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. The State of Maine, State Planning Office (in a letter dated October 10, 1995) determined that the South Berwick Project is consistent with applicable elements of the Maine Coastal Program.

CHNHI (letter dated October 12, 1995) submitted a federal consistency certification to the Office of State Planning, New Hampshire Coastal Program, for a determination regarding the South Berwick Project's consistency with Federal and New Hampshire Coastal Programs. The New Hampshire Coastal Program (letter dated April 29, 1996) denied concurrence with CHNHI's consistency certification due to the lack of sufficient information to indicate that the project is consistent with the enforceable policies of New Hampshire's federally approved coastal management program.

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8 / Kennebec Water Power Company, 81 FERC ¶ 61,254.  
9 / No. 96-4110, 1997 U.S. App. LEXIS 30372.

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By letter dated June 27, 1997, Marcia Brown Thunberg, Federal Consistency Coordinator, New Hampshire Coastal Program, Office of State Planning, stated that the South Berwick Project, as conditioned in the final environmental assessment, was consistent with New Hampshire's federally approved coastal management program. Since I am now issuing a license for that project corresponding to the staff recommended alternative in the environmental assessment, I conclude that the State of New Hampshire has no further objection to this action based on the Coastal Zone Management Act.

#### SECTION 18 FISHWAY PRESCRIPTION

Section 18 of the FPA, 16 U.S.C. 811, provides the Secretary of the Interior the authority to prescribe fishways at Commission-licensed projects.<sup>10</sup> Interior, by letter dated April 5, 1993, prescribed the following measures pursuant to Section 18:

1. The Licensee shall ensure that the design, location, installation (including scheduling), maintenance, and operation of fishways at the South Berwick Dam Project conform to the specifications of the Fish and Wildlife Service.
2. The Secretary of the Interior's authority to prescribe the construction, operation, and maintenance of fishways is reserved under Section 18 of the Federal Power Act.

These above items, with the exception of the scheduling component, are appropriate Section 18 measures, and are included in the license as Articles 407 and 408.

#### RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES AND SECTION 10(j) PROCESS

Section 10(j) of the FPA, 16 U.S.C. 803, requires the Commission to include license conditions, based on recommendations of federal and state fish and wildlife agencies for the protection, mitigation of adverse impacts to, and enhancement of fish and wildlife resources unless such conditions would conflict with the FPA or other law.

Recommendations were submitted pursuant to Section 10(j) by the U.S. Department of the Interior (Interior), Maine Department of Environmental Protection (MDEP), and the New Hampshire Fish and Game Department (NHFG). In the EA, staff recommended, and I adopt herein, conditions consistent with the agencies

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<sup>10</sup> / Section 18 of the FPA provides: "The Commission shall require the construction, maintenance, and operation by a licensee at its own expense of....such fishways as may be prescribed by the Secretary of Commerce or the Secretary of Interior, as appropriate."

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recommendations that the licensee operate the project in run-of-river mode (Article 402); install both upstream and downstream fish passage facilities (Articles 407 and 408); develop a plan for monitoring minimum flows (Article 405); monitor dissolved oxygen levels (Article 406); and limit drawdowns in the impoundment to 1-foot throughout the year (Articles 403 and 404).

I conclude that fish and wildlife resources affected by the project are adequately protected, mitigated, and enhanced, and that the fish and wildlife measures required in this order comply with the requirements of the FPA.

The agencies also made a number of recommendations which, because they are not recommendations for specific measures to protect fish and wildlife, do not come within the scope of Section 10(j), but were considered under FPA Section 10(a)(1). The NHFG recommended that if DO levels fall below state standards, the licensee should be required to take measures to prevent such depletions. However, NHFG did not identify specific provisions to be implemented or the specific standard that must be met. This recommendation is therefore not a specific measure to enhance fish and wildlife resources and thus is outside the scope of Section 10(j). The required measures for run-of-river operation and flow monitoring for the tailrace should reduce or eliminate violations of state water quality standards.

NHFG stated that if the operational mode of the upstream Lower Great Falls Project was clarified to require run-of-river operation, they would withdraw the recommendation for DO monitoring. The Commission issued an order, dated November 17, 1995, requiring run-of-river operation at the Lower Great Falls Project, negating the need for NHFG's recommendation for additional DO monitoring.

Interior and NHFG recommend that the licensee monitor and report recreation use every 5 years, ensure public access to the impoundment and tailrace, and provide public boat launch facilities on the impoundment and in the tailrace. Because these recommendations are not specific measures to protect fish and wildlife, they do not come within the scope of Section 10(j), but were considered under FPA Section 10(a)(1). Recreational use reporting is required by the Commission every 6 years using the Form 80 reporting procedures. I conclude that this level of monitoring is adequate for the project. Articles 410 and 411 provide for public access to the project impoundment and tailrace and boat launching facilities on the impoundment in Rollinsford, New Hampshire and below the tailrace as part of the Counting House Park facility in South Berwick, Maine.

## COMPREHENSIVE PLANS

Section 10(a)(2) 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 a waterway or waterways affected by the project. Under Section 10(a)(2), federal and state agencies filed a total of 15 comprehensive plans of

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which we identified 5 Maine, 6 New Hampshire, and 4 United States plans to be applicable.<sup>11</sup> This license would not conflict with any of these plans.

### COMPREHENSIVE DEVELOPMENT

Sections 4(e) and 10(a)(1) of the FPA, 16 U.S.C. §§ 797(e) and 803(a)(1), require the Commission, in acting on applications for license, to give equal consideration to the power and 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 will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

#### A. Recommended Alternative

Based on staff's independent review and evaluation of the proposed South Berwick Project, agency recommendations, and the no-action alternative as documented in the EA, I am issuing an original license for the South Berwick Project, with additional staff-recommended mitigative measures, as the preferred option. I have selected this option because (1) with mitigation, the environmental effects of operating the project would be relatively minor; (2) the proposed mitigation measures would benefit environmental and recreational resources; and (3) the electricity that would be generated from a renewable resource would be beneficial because it would reduce the

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11 / Atlantic States Marine Fisheries Commission, Supplement to American Shad and River Herrings Fishery Management Plan; Fish and Wildlife Service, Fisheries USA: The Recreational Fisheries Policy of the U.S. Fish and Wildlife Service; Maine Department of Conservation, Maine rivers study final report; Maine State Planning Office, State of Maine comprehensive rivers management plan; Maine State Planning Office, Maine comprehensive rivers management plan Volume 4; Maine Department of Inland Fisheries and Wildlife, Salmon Falls River, Survey Report; Maine Department of Inland Fisheries and Wildlife, Statewide River Fisheries Management Plan; New Hampshire Office of State Planning, New Hampshire coastal program and final environmental impact statement; National Park Service, The Nationwide Rivers Inventory; New Hampshire Office of State Planning, Wild, scenic, and recreational rivers for New Hampshire; New Hampshire Office of State Planning, New Hampshire wetlands priority conservation plan; New Hampshire Office of State Planning, New Hampshire outdoors, 1988-1993: state comprehensive outdoor recreation plan; New Hampshire Office of State Planning, Public access plan for New Hampshire's lakes, ponds, and rivers; State of New Hampshire, New Hampshire rivers management and protection program; State of New Hampshire, New Hampshire rivers management and protection program.



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use of fossil- fueled, steam-electric generating plants, thereby conserving nonrenewable energy resources and reducing atmospheric pollution.

The EA has evaluated effects of operating and maintaining the South Berwick Project as proposed by CHNHI and recommends eight measures to protect, mitigate adverse impacts on, and enhance environmental resources. These measures are:

- (1) operating the project in run-of-river mode;
- (2) developing and implementing a plan to monitor flows, temperature, and DO;
- (3) designing, installing, and operating both upstream and downstream fish passage facilities;
- (4) operating the project within 0.1 foot of the flashboard crest from May 1 through October 31;
- (5) developing and implementing a plan for seasonal stable pond operation that can be maintained from November 1 through April 30;
- (6) rebuilding the impoundment boat launch in the town of Rollinsford;
- (7) developing and maintaining the "Counting House Park" downstream of the project; and
- (8) developing and implementing a recreation plan for the project impoundment and tailrace recreation area.

B. Developmental and Nondevelopmental Uses of the Waterway

The project, with staff's recommended measures, will generate an estimated 4.18 gigawatt-hours of electricity annually from a renewable energy resource for use by area consumers. Positive, long-term benefits to water quality, aquatic habitat, and area recreational resources will result from operating the project with the required measures.

Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corporation,<sup>12</sup> we employ an analysis that uses current costs to compare the costs of the project and likely alternative power. In our analysis for this project, we use no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. This economic analysis provides a general estimate of the potential power benefits of the project compared to the cost of

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12 / 72 FERC ¶ 61,027 (1995), reh'g denied 76 FERC ¶ 61,352 (1996).

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reasonable alternative power. The estimate helps to support an informed licensing decision concerning what is in the public interest.

To determine the economic benefits of the project proposed, staff compared the cost of energy from the proposed project to the most economical source of new power in the New England region of the country, which is a natural gas-fueled combined-cycle combustion turbine capacity. We estimate that the cost of alternative power would be about 54.4 mills/kilowatt hours (kWh).<sup>13</sup>

The annual cost of the existing project is about \$318,400, or about 106.1 mills/kWh, for the existing annual generation of 3.0 gigawatt hours (GWh). The existing project, therefore, produces power at an annual cost of about \$155,100, or about 51.7 mills/kWh more than currently available alternative power.

Including CHNHI's planned capital improvements increases the annual cost to about \$521,100 or about 118.4 mills/kWh, based on the generation of 4.4 Gwh<sup>14</sup> of energy annually. CHNHI's proposed project, therefore, would produce power at an annual cost of about \$331,800, or about 75.4 mills/kWh more than currently available alternative power.

Under the staff alternative, the annual cost of the project would be about \$511,300, or about 122.3 mills/kWh, based on the generation of 4.18 Gwh<sup>15</sup> of energy annually. Staff's proposed project, therefore, would produce power at an annual cost of about \$362,400, or about 86.7 mills/kWh more than currently available alternative power.

The primary costs associated with the required measures will be: (1) operating the project in run-of-river mode at an annual cost of \$27,900;<sup>16</sup> (2) upgrading equipment

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13 / The 54.4 mills/kWh cost of alternative power is for the existing project. This cost is reduced to 43.0 mills/kWh for the existing project with the applicant's proposed measures and further reduced to 36.8 mills/kWh when staff's measures are added (see page 61 of the attached EA).

14 / CNHNI's planned rehabilitation work on the turbine generators would increase annual generation to about 4.65 Gwh without increasing capacity. Proposed minimum flows would reduce the annual generation by about 0.1 Gwh to 4.4 Gwh.

15 / Staff's recommended change to run-of-river operation would decrease annual generation from 4.4 Gwh to about 4.18 Gwh.

16 / The staff has evaluated the impacts of such a run-of-river restriction on the power benefits of the South Berwick Project. The staff used the peaking operation spreadsheet model that it developed to model the multiple-project peaking operation of the projects in the Lower Androscoggin, Flambeau, and Saco River Basins. The staff's studies evaluated the peaking capacity of the project based on a weekly 6-hour, 5-day

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to provide minimum flows and stable pond at an annual cost of \$11,300; (3) constructing, operating, and studying the effectiveness of fish passage facilities at an annual cost of \$62,400; (4) conducting temperature and DO monitoring in the project tailrace at an annual cost of \$10,800; and (5) providing additional recreation enhancements at an annual levelized cost of \$7,100.

In total, staff estimates that, in addition to the annual cost of CHNHI's planned capital improvements, it would cost CHNHI about \$106,000 annually to implement its proposed enhancements and an additional \$30,400 annually to implement the staff's additional measures. Under the staff alternative, the project would produce power at an annual cost of about \$362,400 or 86.7 mills/kWh more than the currently available alternative.

Staff's evaluation of the economics of the proposal shows that it appears to cost more than currently available alternative power (or avoided costs). However, as explained in Mead, supra, economics is only one of the many public interest factors we consider in determining whether or not, and under what conditions, to issue a license. Although the continued operation of the project would be more economical under CHNHI's proposal than under the conditions adopted herein, CHNHI is ultimately responsible and best able to determine whether continued operation of the existing project including the conditions adopted herein is a reasonable decision in these circumstances. I conclude that it is in the public interest to issue the license, as conditioned herein, and leave to CHNHI the decision of whether or not to continue to

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peaking cycle with weekend pondage to maximize generation during the weekly peak-load hours with the useable reservoir storage. The staff used the water year 1992 as generally representative of average water conditions. The staff's studies show that the applicant could operate the project to an average 6-hour peak capacity of 860 kW during the November through February winter season by maximizing the use of its current 2-foot reservoir drawdown limit. The staff's studies further show that if the drawdown were eliminated in run-of-river operations, the average winter weekday 6-hour peaking capacity would be reduced to 528 kW. Therefore a run-of-river operating requirement would reduce the project's winter peaking capability by an average of 332 kW. If the applicant would lose 332 kW of capacity credit in its power sales for the entire year then the value of lost power would be about \$36,188 annually, based on the staff's estimated \$109/kW-year capacity value (FEA Footnote 11).

At the July 1, 1997, conference in Boston, the applicant claimed that the run-of-river operating restriction would result in the annual loss of capacity payments of approximately \$750,000. Even if the applicant were receiving capacity payments for the total maximum generating capability of the project at all times, and the run-of-river restriction would eliminate all capacity benefits, the maximum economic impact to the licensee would be about \$146,060 annually. This is computed from the applicant's claimed maximum project generating capability of 1,340 kW multiplied by \$109/kilowatt-year.

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operate the project as so conditioned.

## SUMMARY

Based on a review of the agency and public comments filed in this proceeding and on staff's independent analysis pursuant to Section 10(a)(1) of the FPA, I conclude that the South Berwick Project, as proposed by CHNHI, with staff required measures and other special license conditions, would be best adapted to the comprehensive development of the Salmon Falls River.

## LICENSE TERM

CHNHI does not propose new hydropower development at the project, but does propose substantial enhancement measures including turbine upgrades, run-of-river operation, float control for run-of-river operation, and upstream and downstream fish passage facilities. Therefore the original license for the South Berwick Project will be for a term of 40 years, effective the first day of the month in which this license is issued.<sup>17</sup>

As set forth in City of Danville, Virginia, 58 FERC ¶ 61,318 (1992), in the case of licenses issued for previously unauthorized existing projects, the license term is prospective only. However, it is the Commission's policy to condition the license upon payment of an amount equivalent to any additional charges that would have been collected, had the license been backdated to when it first should have been issued.<sup>18</sup>

The Commission determined that the Salmon Falls River, including the South Berwick Project segment, is a navigable waterway as defined by Section 3(8) of the Federal Power Act (12 FERC ¶ 61,028 (1980)). Therefore, if not before, then certainly after that date, all concerned were on notice that the project was required to be licensed. We will accordingly assess back annual charges from July 9, 1980, the month and year in which the river was determined to be navigable, to September 30, 1994.

## SUMMARY OF FINDINGS

The EA issued for this project includes background information, analysis of impacts, support for related license articles, and the basis for a finding of no significant impact on the environment. Issuance of this license is not a major federal action significantly affecting the quality of the human environment.

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17 / An original license is only issued for an unlicensed project, whether constructed or unconstructed.

18 / See City of Danville, VA., 58 FERC at pp. 62,021-22. As of October 1, 1994, the Commission is not assessing annual charges for projects with less than 1,500 kW authorized installed capacity.

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The design of this project is consistent with the engineering standards governing dam safety. The project will be safe if operated and maintained in accordance with the requirements of this license.

The Director orders:

(A) This license is issued to Consolidated Hydro New Hampshire, Inc. (Licensee), for a period of 40 years, effective the first day of the month in which this order is issued, to operate and maintain the South Berwick Hydroelectric Project. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the Licensee's interests in those lands, shown by Exhibit G.

<u>Exhibit G</u>	<u>FERC Drawing No.</u>	<u>Showing</u>
G	11163-3	Map of Project Area

(2) Project works consisting of: (1) a concrete gravity dam that is an average of 18 feet high and 290 feet long with a 220 foot-long concrete spillway section utilizing 2-foot-high wooden flashboards; (2) an impoundment that is about 1 mile long, has a surface area of 58 acres, and contains 116 acre-feet of usable storage; (3) a concrete intake structure in the east abutment of the dam consisting of three headgates that lead to three, 8-foot diameter penstocks and two sluice gates that may be used as flood gates and for lowering the headpond; (4) an 85-foot-long by 30 foot-wide powerhouse housing three turbine units for a total installed capacity of 1,200 kW; and (5) appurtenant facilities.

The project works generally described above are more specifically shown and described by those portions of exhibits A and F shown below.

Exhibit A: The following sections of Exhibit A filed June 26, 1991:

The generator description on page A-1; the turbine description on pages A-1 and A-4, and additional mechanical and electrical equipment described elsewhere on page A-3.

<u>Exhibit F</u>	<u>FERC Drawing No.</u>	<u>Showing</u>
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F	11163-1	Principal Project Works
F	11163-2	Principal Project Works

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located at the project; all portable property that may be employed in connection with the project and located near the project; and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A, F, and G described above are approved and made part of the license.

(D) The following sections of the FPA are waived and excluded from the license for this minor project:

4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the FPA that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(E) This license is subject to the articles set forth in Form L-9 (October 1975), entitled "Terms and Conditions of License for Constructed Minor Project Affecting the Navigable Waters of the United States," and the following articles:

Article 201. The Licensee shall pay the United States the following annual charges:

1. From July 9, 1980, to September 30, 1994, for the purpose of reimbursing the United States for the costs of administering Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 1,200 kilowatts (kW).

2. From November 1, 1997, through January 30, 2037, for the purpose of reimbursing the United States for the costs of administering Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 1,200 kW. Under the regulations currently in effect, projects with authorized installed capacity of less than or equal to 1,500 kW are not assessed an annual administrative charge.

Article 202. If the licensee's project was directly benefitted by the construction

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work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this license.

Article 203. Within 45 days of the date of issuance of the license, the licensee shall file an original set and two duplicate sets of aperture cards of the approved exhibit drawings. The set of originals shall be reproduced on silver or gelatin 35 mm microfilm. The duplicate set shall be copies of the originals made on diazo-type microfilm. All microfilm shall be mounted on type D (3-1/4" x 7-3/8") aperture cards.

Prior to microfilming, the Commission Drawing Number (11163-1 through 11163-13) shall be shown in the margin below the title block of the approved drawing. After mounting, the Commission Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, Commission Exhibit (e.g., F-1, G-1), Drawing Title, and date of this license shall be typed on the upper left corner of each aperture card.

The original and one duplicate set of aperture cards shall be filed with the Secretary of the Commission, ATTN: DLC/Engineering Section. The remaining duplicate set of aperture cards shall be filed with the Commission's Atlanta Regional Office.

Article 401. At least 90 days before the start of any land-disturbing or land-clearing activities associated with the construction of recreation facilities, fishways, or other features required by this license, the Licensee shall file with the Commission, for approval, a plan to control erosion, to control slope instability, and to minimize the quantity of sediment resulting from project construction and operation.

The plan shall be based on actual-site geological, soil, and groundwater conditions and on project design, and shall include, at a minimum, the following four items:

- (1) a description of the actual site conditions;
- (2) measures proposed to control erosion, to prevent slope instability, and to minimize the quantity of sediment resulting from project construction and

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operation;

(3) detailed descriptions, functional design drawings, and specific topographic locations of all control measures; and

(4) a specific implementation schedule and details for monitoring and maintenance programs for fishway and recreational facility construction and operation.

The Licensee shall prepare the plan after consultation with the Natural Resources Conservation Service, the Maine Department of Environmental Conservation, and the town of South Berwick.

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 entities, and specific descriptions of how the entities' comments are accommodated by the plan. The Licensee shall allow a minimum of 30 days for the entities to comment and to 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 geological, soil, and groundwater conditions at the site.

The Commission reserves the right to require changes to the plan. No land-disturbing or land-clearing activities shall 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 402. The Licensee shall operate the project in a run-of-river mode for the protection of water quality, aquatic and riparian habitats, and recreational resources on the Salmon Falls River. The Licensee shall at all times act to minimize the fluctuation of the reservoir surface elevation by maintaining a discharge from the project so that, at any point in time, flows, as measured immediately downstream from the project tailrace, approximate the sum of inflows to the project reservoir.

Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the Licensee, and for short periods upon mutual agreement between the Licensee and the U.S. Fish and Wildlife Service, the New Hampshire Department of Fish and Game, and the Maine Department of Environmental Protection. If the flow is so modified, the Licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 403. The Licensee shall operate the South Berwick Project to control fluctuations of the reservoir surface elevation for the protection of wetlands, wildlife, and fish habitat in the project impoundment. The Licensee shall act at all times to maintain the impoundment water surface elevation, as measured immediately upstream of the



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project dam, as follows:

From May 1 through October 31, each year - maintain the impoundment water surface elevation within 0.1 feet of elevation 24.95 feet mean sea level (msl).

If the instantaneous inflow falls below the hydraulic capacity of one turbine unit, all inflows shall be released through an automated gate tied to project operation.

These flows may be temporarily modified, if required by operating emergencies beyond the control of the Licensee, or for short periods upon agreement among the Licensee, the U.S. Fish and Wildlife Service, the New Hampshire Department of Fish and Game, and the Maine Department of Environmental Protection. If the flow is so modified, the Licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident.

Article 404. Within 6 months after license issuance, the Licensee shall file with the Commission, for approval, a plan to provide stable pond operation at an elevation that can be maintained for the duration of the winter ice season (November 1 through April 30) or some portion of the winter season when ice load on the flashboards would limit stable pond operation at the top of the flashboards. Stable pond operation is important to aquatic and riparian resources in the impoundment; however, during this period, operation of the impoundment at the top of the flashboards during winter and early spring may result in flashboard failure due to ice load. Therefore, the stable pond operation developed in this plan would benefit resources while recognizing the operational difficulties in dealing with seasonal ice loads.

The Licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, the New Hampshire Department of Fish and Game, and the Maine Department of Environmental Protection.

The Licensee shall include with the plan documentation of agency 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 to 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. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

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Article 405. Within 6 months after license issuance, the Licensee shall file with the Commission, for approval, a plan to monitor the project impoundment level and outflow from the project below the tailrace to document compliance with the run-of-river operation required by Article 402 and the stable pond requirements of Articles 403 and 404.

The plan shall include, at a minimum, the following items:

- (1) the specific methods to provide the specified run-of-river flows;
  - (2) a schedule for installing all flow measuring devices;
  - (3) the planned locations of the flow measuring devices;
  - (4) the design of the devices, including any pertinent hydraulic calculations;
- and
- (5) the method of flow data collection, and provisions for providing data to the regulatory agencies in a timely manner.

The Licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, the New Hampshire Department of Fish and Game, and the Maine Department of Environmental Protection.

The Licensee shall include with the plan documentation of agency 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 to 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. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

Article 406. Within 6 months after license issuance, the Licensee shall file with the Commission, for approval, a plan to monitor dissolved oxygen (DO) and temperature levels in the Salmon Falls River downstream of the project.

The purpose of this monitoring plan is to ensure that streamflows below the project, as measured immediately downstream of the project tailrace, maintain a DO

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content of no less than 7 parts per million or 75 percent of saturation, whichever is higher, except for the period from October 1 to May 14.

The monitoring plan shall include a schedule for:

- (1) implementation of the program;
- (2) consultation with the appropriate federal and state agencies concerning the results of the monitoring; and
- (3) filing the results, agency comments, and Licensee's response to agency comments with the Commission.

The Licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, the New Hampshire Department of Fish and Game, and the Maine Department of Environmental Protection.

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 to 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. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

Article 407. Within 9 months after the date of license issuance, the Licensee shall file, for Commission approval, detailed design drawings of the Licensee's proposed permanent downstream fish passage facilities.

This filing shall include but not be limited to: (1) the location and design specifications of the passage facilities; (2) a schedule for installing the facilities; and (3) procedures for operating and maintaining the facilities.

The Licensee shall prepare the aforementioned drawings, schedule, and plans after consultation with the U.S. Fish and Wildlife Service, the Maine Department of Marine Resources, the Maine Division of Inland Fisheries and Wildlife, and the New Hampshire Fish and Game Department.

The Licensee shall include with the filing documentation of consultation, copies of agency comments and recommendations on the drawings, plans, and schedule after

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they have been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the Licensee's facilities. The Licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the drawings, plans, and schedule 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 proposed facilities and schedule. No construction of downstream fish passage facilities shall begin until the Licensee is notified by the Commission that the plan is approved. Upon Commission approval, the Licensee shall implement the proposal, including any changes required by the Commission.

Article 408. Within 9 months after the date of license issuance, the Licensee shall file, for Commission approval, detailed design drawings for permanent upstream fish passage facilities.

The Licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, Maine Department of Marine Resources, the New Hampshire Department of Fish and Game, and the Maine Department of Environmental Protection.

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 to 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 proposed facilities and schedule. No land-disturbing or land clearing activities related to upstream fish passage shall begin until the Licensee is notified by the Commission that the plan is approved. Upon Commission approval, the Licensee shall implement the proposal, including any changes required by the Commission.

Article 409. Within 18 months after license issuance, the Licensee shall file with the Commission, for approval, a plan to monitor the effectiveness of all the facilities and flows provided pursuant to Articles 407 and 408 of this license that will enable the efficient and safe passage of anadromous fish migrating upstream and downstream. The results of these monitoring studies shall be submitted to the agencies listed below and shall provide a basis for recommending future structural or operational changes at the project.

The monitoring plan shall include a schedule for: (1) implementation of the plan;

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(2) consultation with the appropriate federal and state agencies concerning the results of the monitoring; and (3) filing the results, agency comments, and Licensee's response to agency comments with the Commission.

The Licensee shall prepare the monitoring plan after consultation with the U.S. Fish and Wildlife Service, Maine Department of Marine Resources, the Maine Department of Environmental Protection, and the New Hampshire Fish and Game Department.

The Licensee shall include with the plan documentation of agency consultation, copies of agency comments and recommendations on the plan after it has been prepared and provided to them, and specific descriptions of how the agencies' comments are accommodated by the Licensee's plan. The Licensee shall allow a minimum of 30 days for the agencies to comment and to 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 proposed plan. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

If the results of the monitoring indicate that changes in project structures or operations, including alternative flow releases, are necessary to protect fish resources, the Licensee shall first consult with the agencies listed above to develop recommended measures for amelioration and then file its proposal with the Commission, for approval. The Commission reserves its authority to require the Licensee to modify project structures or operations to protect and enhance aquatic resources.

Article 410. Within 6 months after license issuance, the Licensee shall file with the Commission, for approval, a proposed agreement with the town of Rollinsford that indicates the measures to be undertaken to improve and maintain the existing impoundment boat launch.

If during this period an agreement cannot be reached with the town of Rollinsford, the Licensee shall develop and implement a plan to construct, operate, and maintain a public boat access point to the project impoundment at an alternative site. This plan shall be filed with the Commission, for approval, within 1 year from the issuance date of this license. The Licensee shall file the plan after consultation with the Maine State Planning Office, the Maine Department of Environmental Protection, the New Hampshire Office of State Planning, and the New Hampshire Fish and Game Department.

The Licensee shall include with the plan documentation of agency consultation, copies of agency comments and recommendations on the plan after it has been prepared and provided to them, and specific descriptions of how the agencies'

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comments are accommodated by the Licensee's plan. The Licensee shall allow a minimum of 30 days for the agencies to comment and to 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 proposed plan. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

Article 411. Within one year after license issuance, the Licensee shall file with the Commission, for approval, a plan for the construction and maintenance of the "Counting House Park" facility. This plan shall be based on the facilities described in the May 6, 1992, Filing Response to Request for Additional Information, Appendix A-3 containing an April 6, 1992, letter from Wayne Nelson to the town of South Berwick.

The final plan shall be developed in consultation with the town of South Berwick, the Maine State Planning Office, and the Maine Department of Environmental Protection.

The Licensee shall include with the plan documentation of agency consultation, copies of agency comments and recommendations on the plan after it has been prepared and provided to them, and specific descriptions of how the agencies' comments are accommodated by the Licensee's plan. The Licensee shall allow a minimum of 30 days for the agencies to comment and to 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 proposed plan. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

Article 412. Within 6 months after license issuance, the Licensee shall file with the Commission, for approval, a final recreation plan.

The final plan shall provide for the following recreational enhancements at the project: (1) a public parking and trailered boat launching area on the project impoundment; (2) development of the "Counting House Park" located downstream of the powerhouse; and (3) signs directing recreationists to the boat launch and Counting House Park facilities.

The final plan shall include, at a minimum, the following: (1) final drawings and specifications for the recreation facilities cited above; (2) design drawings of the directional signs and a description of where they will be located; (3) erosion and sediment control measures, designed in consultation with the Natural Resource

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Conservation Service, which shall be implemented during construction; (4) an implementation schedule not to exceed 6 months from the date of the plan's approval; (5) costs of all improvements; and (6) a description of the proposed operation and maintenance of each facility and access area.

The plan shall also include a discussion of how the needs of the disabled were considered in the planning and design of each recreation facility, and an identification of all facilities that are available for use by the disabled.

The Licensee shall file the plan after consultation with the Town of South Berwick, the Maine State Planning Office, and the Maine Department of Environmental Protection.

The Licensee shall include with the filing documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the entities, and specific descriptions of how the entities' comments are accommodated by the plan. The Licensee shall allow a minimum of 30 days for the entities to comment and to 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. No land-disturbing or land-clearing activities for recreational facilities shall 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.

Within 90 days after completion of construction, the Licensee shall file as-built drawings of the recreation facilities with the Commission.

Article 413. If archeological or historic sites are discovered during construction of proposed recreational or fish passage facilities or during project operation, the Licensee shall: (1) consult with the State Historic Preservation Officer (SHPO); (2) prepare and implement a cultural resources management plan to evaluate the significance of the sites and to avoid or mitigate any impacts to any sites found eligible for inclusion in the National Register of Historic Places; (3) base the plan on the recommendations of the SHPO and the Secretary of the Interior's Guidelines for Archeology and Historic Preservation; (4) file the plan for Commission approval, together with the written comments of the SHPO on the plan; and (5) take the necessary steps to protect the discovered sites from further impact until notified by the Commission that all of these requirements have been satisfied.

The Commission may require a cultural resources survey and changes to the cultural resources management plan based on the filings. The Licensee shall not

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implement a cultural resources management plan or begin any land-clearing or land-disturbing activities in the vicinity of any discovered sites until informed by the Commission that the requirements of this article have been fulfilled.

Article 414. (a) In accordance with the provisions of this article, the Licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The Licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the Licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article.

If a permitted use and occupancy violates any condition of this article or any other condition imposed by the Licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the Licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any noncomplying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the Licensee may grant permission without prior Commission approval are:

- (1) landscape plantings;
- (2) noncommercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings;
- (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and
- (4) food plots and other wildlife enhancement.

To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the Licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The Licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the Licensee shall:



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- (1) inspect the site of the proposed construction;
- (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and
- (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.

To implement this paragraph (b), the Licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the Licensee's costs of administering the permit program. The Commission reserves the right to require the Licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The Licensee may convey easements or rights-of-way across, or leases of, project lands for:

- (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained;
- (2) storm drains and water mains;
- (3) sewers that do not discharge into project waters;
- (4) minor access roads;
- (5) telephone, gas, and electric utility distribution lines;
- (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary;
- (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and
- (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir.

No later than January 31 of each year, the Licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

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(d) The Licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for:

(1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained;

(2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained;

(3) other pipelines that cross project lands or waters but do not discharge into project waters;

(4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained;

(5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina;

(6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and

(7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year.

At least 60 days before conveying any interest in project lands under this paragraph (d), the Licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the Licensee to file an application for prior approval, the Licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the Licensee shall consult with federal and

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state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the Licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to insure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the Licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the Licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(F) 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 entities must accompany the filing with the Commission.

(G) This order is issued under authority delegated to the Director and constitutes final agency action. Requests for rehearing by the Commission may be filed within 30

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days of the date of issuance of this order, pursuant to 18 CFR Section 385.713. The filing of a request to rehearing does not operate as a stay of the effective date of this order or of any other data specified in this order, except as specifically ordered by the Commission. The Licensee's failure to file a request for rehearing shall constitute acceptance of this order.

Kevin P. Madden,  
Acting Director, Office of  
Hydropower Licensing

Form L-9  
(October, 1975)

FEDERAL ENERGY REGULATORY COMMISSION

TERMS AND CONDITIONS OF LICENSE FOR CONSTRUCTED  
MINOR PROJECT AFFECTING NAVIGABLE  
WATERS OF THE UNITED STATES

**Article 1.** The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

**Article 1.** No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

**Article 3.** The project area and project works shall be in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

**Article 4.** The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands

of the United States, shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

**Article 5.** The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

**Article 6.** The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

**Article 7.** The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

**Article 8.** The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

**Article 9.** The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and

utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

**Article 10.** On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

**Article 11.** The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

**Article 12.** Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the



project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

**Article 13.** So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

**Article 14.** In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon the request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

**Article 15.** The Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

**Article 16.** Material may be dredged or excavated from, or placed as fill in, project lands and/or waters only in the prosecution of work specifically authorized under the license; in the maintenance of the project; or after obtaining Commission approval, as appropriate. Any such material shall be removed and/or deposited in such manner as to reasonably preserve the environmental values of the project and so as not to interfere with traffic on land or water. Dredging and filling in a navigable water of the United States shall also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

**Article 17.** If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit

for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

**Article 18.** The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

**Article 18.** The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.