

100 FERC ¶ 61, 317
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
William L. Massey, Linda Breathitt,
and Nora Mead Brownell.

Erie Boulevard Hydropower, L.P.

Project Nos. 2482-014 and 2482-029

ORDER ISSUING NEW LICENSE

(Issued September 25, 2002)

1. This order issues a new license to Erie Boulevard Hydropower, LP (Erie) for the continued operation and maintenance of the 79.62 megawatt (MW) Hudson River Project No. 2482.¹ In a companion order issued today, we approve a Settlement Offer regarding the license applications for several projects on the Sacandaga and upper Hudson Rivers in New York.² Also in separate orders issued today, we are issuing to Erie new licenses for the three other Erie projects covered by the Settlement Offer,³ and to the Hudson River-Black River Regulating District (District) an original license for previously unlicensed project works in the same unit of development as Erie's E.J. West Project No. 2318.⁴

2. This order is in the public interest because it preserves the benefits of hydroelectric generation, will not result in any major, long-term adverse environmental impacts, and includes enhancements to the existing aquatic and terrestrial environments, recreation, and cultural resources. We find therefore that issuance of a license for the

¹An original license was issued for the project in 1950 (9 FPC 896). The original license for Hudson River expired on December 31, 1993 and the project has operated on annual licenses since that time. See FPA Section 15(a)(1), 16 U.S. C. § 805(a)(1).

²Erie Boulevard Hydropower, L.P. and Hudson River-Black River Regulating District, 101 FERC ¶ ____.

³Erie Boulevard Hydropower, L.P., 101 FERC ¶ ____ (E.J. West Project No. 2318); 101 FERC ¶ ____ (Stewarts Bridge Project No. 2047); and 101 FERC ¶ ____ (Feeder Dam Project No. 2554).

⁴Hudson River-Black River Regulating District, 101 FERC ¶ ____ (Great Sacandaga Lake Project No. 12252)

Project Nos. 2482-014 and 2482-029

- 2 -

Hudson River Project, with the conditions attached hereto, will serve the public interest because it is best adapted to the comprehensive development of the upper Hudson River Basin.

BACKGROUND

3. Erie's predecessor in interest, Niagara Mohawk Power Corporation (Niagara Mohawk)⁵ filed applications for new licenses, pursuant to Section 4(e) and 15 of the Federal Power Act (FPA),⁶ authorizing the continued operation and maintenance of four projects: Stewart's Bridge Project No. 2047; E.J. West Project No. 2318, Hudson River Project No. 2482, and Feeder Dam Project No. 2554.⁷ The projects, listed in order from upstream to downstream, are E.J. West and Stewarts Bridge, both located on the

⁵The four projects were later transferred to Erie, which became the relicense applicant for the projects. See Niagara Mohawk Power Corp. and Erie Boulevard Hydropower, LP, 88 FERC ¶ 62,082 (1999), aff'd, 90 FERC ¶ 61,148 (2000). The 1999 order also transferred the license for the Feeder Dam Project No. 2554t from Moreau Manufacturing Company, a subsidiary of Niagara Mohawk, to Niagara Mohawk.

⁶16 U.S.C. § 797(e), 808.

⁷Timely motions to intervene were filed by the Adirondack Park Agency, the Town of Hadley and County of Saratoga, New York, County of Fulton, New York, Great Sacandaga Lake Association, Great Sacandaga Lake Fisheries Federation, Inc., New York State Department of Environmental Conservation, Adirondack Mountain Club, U.S. Department of the Interior, New York Rivers United, on behalf of itself and American Whitewater, Natural Heritage Institute, and Trout Unlimited, Sacandaga Marine, Inc., Adirondack Board Sailing Club, Finch, Pruyn, and Company, the District, Day Country Store, Adirondack Hydro Development Company, New York State Electric and Gas Company, Fort Miller Associates, Curtis Palmer Hydroelectric Company, L.P.,

J. Andrews, Frank Wozniak, and Fourth Branch Associates. A timely request to intervene was filed by Mr. Donal O'Leary on March 6, 1992, but the request was not accompanied by a certificate of service, as required by 18 C.F.R. § 385.2010(h). The record does not indicate that Mr. O'Leary subsequently participated in this proceeding. His request to intervene is therefore denied.

Project Nos. 2482-014 and 2482-029

- 3 -

Sacandaga River⁸ in Saratoga County, New York, and Hudson River and Feeder Dam, located on the Hudson River in Warren and Saratoga Counties, New York.

4. Niagara Mohawk's new license application for E.J. West included only the powerhouse and generating facilities, which are the only project facilities included in the original license for the project. The Commission later determined that the dam and reservoir (Conklingville Dam and Great Sacandaga Lake) are also included in the "unit of development" and must therefore be licensed.⁹ On April 14, 1993, Niagara Mohawk filed an amendment to its license application for the E.J. West Project to include Conklingville Dam and Great Sacandaga Lake.

5. On April 12, 2000, Erie amended its relicense applications by filing a Settlement Offer dated March 27, 2000 covering all four applications. The Settlement Offer, which is signed by most of the parties to the relicense proceedings, contains revised and additional environmental measures.¹⁰

6. On the same date, Erie and the District filed an amendment to the E.J. West application to add the District as a co-applicant. The amendment requested issuance of

⁸The Hudson River is a navigable waterway of the United States. See 8 FPC 231 (1949). Therefore, Section 23(b)(1) of the FPA, 16 U.S.C. § 817(1), requires Project No. 2482 to be licensed.

⁹See letter to Niagara Mohawk dated August 27, 1992 from the Director, Division of Project Review, Office of Hydropower Licensing. A "project" is defined in Section 3(11) of the FPA, 16 U.S.C. § 796(3)(11), as "a complete unit of development, consisting of all dams, powerhouses, impoundments, water rights, and lands which are used in connection with such unit." The complete unit of development must be licensed, but the Commission is not required to place all parts of the unit of development under a single license. For ownership or other reasons, the Commission can license different parts of a complete unit of development in different licenses. See, e.g., Orange and Rockland Utilities, 44 FERC ¶ 61,235 n.30 (1988); Susquehanna Power Co., 32 FPC 826 (1964); Finch, Pruyn, & Co., 33 FPC 321 (1965); Niagara Mohawk Power Co., 40 FPC 185 (1968); Pacific Gas and Electric Company, 52 FPC 1898 (1974).

¹⁰The signatories to the Settlement Offer are listed in the order approving that agreement. See 101 FERC ¶ _____, n.12

Project Nos. 2482-014 and 2482-029

- 4 -

separate licenses under separate project numbers for the District (the dam and reservoir) and for Erie (the powerhouse and generating facilities).¹¹

7. On May 16, 2001, the Commission issued a Draft Environmental Impact Statement (Draft EIS) on all four applications. Several parties filed comments on the draft EIS.¹² The Final EIS was issued on November 30, 2001. The EIS contains background information, analysis of impacts, and the basis for a finding of no significant impact on the environment. Comments on the EIS were filed by Adirondack Hydro Development Company (AHDC), New York State Department of Environmental Conservation (NYDSDEC), and U.S. Environmental Protection Agency (EPA). All comments received from interested agencies and individuals have been fully considered in determining whether, and under what conditions, to issue this license.

PROJECT DESCRIPTION

8. The Hudson River Project is located in the counties of Warren and Saratoga, New York, and in the towns of Moreau, Corinth, Lake Luzerne, and Queensbury. It consists of two developments on the Hudson River south of its confluence with the Sacandaga River, the Spier Falls development at River Mile (RM) 212 and the Sherman Island development at RM 209. Spier Falls and Sherman Island are operated in a peaking mode in tandem.¹³

¹¹Public notice requesting comments and interventions was issued on May 2, 2001. 66 Fed. Reg. 23,251-252 (May 5, 2001). A timely motion to intervene and protest was filed by Paul Nolan. Mr. Nolan's protest is addressed in the Order Approving Settlement Agreement.

¹²Comments on the Draft EIS were filed by Erie, the District, New York State Department of Environmental Conservation, U.S. Department of the Interior, the U.S. Environmental Protection Agency, Adirondack Mountain Club, Saratoga, and Adirondack Hydro Development Corporation.

¹³At Hudson RM 218, below the confluence of the Sacandaga and Hudson Rivers and above the Hudson River Project, is the 58.8 MW Curtis/Palmer Falls Project No. 2609, licensed to Curtis/Palmer Hydroelectric Associates, L.P. and International Paper Company, and that Project No. 2609 was issued a new license on April 27, 2000, 91 FERC ¶ 61,211.

Project Nos. 2482-014 and 2482-029

- 5 -

9. The Spier Falls development includes: (1) three concrete gravity dams measuring 52, 553, and 306 feet in length with spillways and a maximum height of 145 feet; (2) a reservoir with a 638-acre surface area; (3) a forebay canal; (4) two intake structures; (5) two penstocks; and (6) a powerhouse containing two turbine/generators with rated capacities of 7,300 kW and 43,200 kilowatts, respectively. There is no bypassed reach. Water is discharged from the powerhouse directly into the backwater of the Sherman Island reservoir.

10. The Sherman Island Development includes: (1) a 949-foot-long buttressed and gravity dam with a spillway and with a maximum height of 38 feet at the spillway section and 67 feet at the non-overflow section; (2) a reservoir with a 305 acre surface area; (3) a forebay; (4) an intake structure with a power canal and 15 penstocks; and (5) a powerhouse with four turbine/generators with installed capacities of 7,200 kW each. There is a 4,000 foot bypassed reach between the dam and the powerhouse. Water from the powerhouse is discharged directly into the backwater of the Feeder Dam reservoir. A detailed description of project facilities is found in Ordering Paragraph (B)(2).

SETTLEMENT OFFER

11. As discussed in the Order Approving Settlement Offer, the Settlement Offer resolves a range of resource use issues and is in the public interest, and we include in the individual licenses articles implementing the appropriate terms of the Settlement Offer, along with provisions that will enable us to ensure compliance with all license conditions. Here we discuss the provisions specific to the Hudson River Project.

Flow and Water Level Monitoring¹⁴

12. The Settlement Offer provides for Erie to develop a stream flow and water level monitoring plan for all of its projects covered by the Settlement Offer in consultation with the District (as it concerns the District's operations), NYSDEC, U.S. Fish and Wildlife Service (USFWS), Fulton and Saratoga Counties, and the parties to the Settlement Offer. The plan is to include all gages and equipment needed to determine: (1) the stage or flow of the Sacandaga and Hudson Rivers at appropriate locations, (2) all other project flows (e.g., through turbines and gates); (3) headpond and tailwater elevations; and (4) to provide means of independent verification of minimum flows by NYSDEC, USFWS, and the public.

¹⁴Settlement Offer Section 2.12.

Reservoir Fluctuations

13. The Settlement Offer limits impoundment fluctuations at Spier Falls and Sherman Island to 1-foot daily, effective upon issuance of the license, from the beginning of walleye spawning season until June 15. The actual beginning date of the one-foot limit will be determined based on when water temperature becomes suitable for walleye spawning. During the remainder of the year, daily impoundment fluctuations are to be limited to two feet.¹⁵

14. Erie is also required to install pneumatic flashboards on a portion of the Sherman Island Dam to facilitate pond level control. Other sections of the Sherman Island Dam will continue to have wooden flashboards, the replacement of which are subject to timing restrictions to protect walleye spawning.

Fish Protection and Downstream Movement

15. To provide protection against entrainment of resident fish into the project turbines, Erie will install in full trash rack overlays with one inch bar spacing at Sherman Island in 2006 and at Spier Falls in 2010. Downstream movement of fish at both dams will be facilitated upon installation of the trash rack overlays by a continuous flow of 25 cubic feet per second (cfs) through a modification to existing sluiceways.¹⁶

Minimum Flows

16. The only minimum flow required at Spier Falls is the 25 cfs provided for fish passage. The Sherman Island Development discharges into two channels, separated by an island, the North Channel and South Channel. Year-round minimum flows of 100 cfs and 150 cfs are to be provided to the North and South Channels, respectively, except during walleye spawning season. During walleye spawning season (approximately mid-March through May or early June) the combined minimum flow for both channels increases to

¹⁵Settlement Offer Section 6.1.1.

¹⁶Settlement Offer Section 6.2.

Project Nos. 2482-014 and 2482-029

- 7 -

675 cfs.¹⁷

Recreation

17. The Settlement Offer provides for Erie to continue permitting public access to the shoreline of the Spier Falls and Sherman Island developments across Erie's project lands where considerations of safety and pre-existing leases, easements, or private ownership along the shoreline do not preclude it. At Spier Falls, Erie has agreed to improve the existing boat launch area by expanding the picnicing area, adding parking space and picnic facilities for the disabled, installing a low-angle access trail to the picnic area and the water's edge for wheelchair use, and adding new picnic tables. Erie has also agreed to add a canoe portage trail with appropriate signage, and to add two new campsites with water access to the impoundment. A very similar package of improvements is proposed for Sherman Island.¹⁸ In addition Erie is to develop a parking area and foottrail leading to the Sherman Island bypassed reach.¹⁹

18. Consistent with our approval of the Settlement Offer, this new license for Hudson River contains articles requiring Erie to implement that agreement.²⁰

WATER QUALITY CERTIFICATION

¹⁷Settlement Offer Section 6.3.2.

¹⁸Settlement Offer Sections 6.4.1 and 6.4.2.

¹⁹Settlement Offer Section 6.4.2.4. Erie has also agreed to cooperate with the Town of Queensbury, New York to develop a new boat launch on Erie's property on the north shore of the Sherman Island impoundment and to lease the necessary land to the Town. The Settlement Offer states that the boat launch is not to become part of a new license for the project. Settlement Offer Section 6.4.2.5. Depending on the specific development proposal, Erie may be able to execute the necessary lease without prior Commission authorization pursuant to the standard land use article included as Article 409 of this license.

²⁰See Articles 401-402 (flow and water level monitoring), 403 (impoundment fluctuations), 404 (fish protection and downstream passage), and 406 (recreation facilities).

19. Under Section 401(a)(1) of the Clean Water Act (CWA),²¹ the Commission may not issue a license for a hydroelectric project unless the state water quality certifying agency has issued a water quality certification for the project or has waived certification. Section 401(d) of the CWA provides that state certification shall become a condition on any federal license or permit that is issued.²² Only a reviewing court can revise or delete these conditions.²³ NYSDEC issued Section 401 water quality certification for Hudson River, subject to certain conditions, on February 5, 2002. The conditions are attached to this order as Appendix A.

ENVIRONMENTAL IMPACT STATEMENT

20. The EIS on Erie's and the District's license applications, as amended by the Settlement Offer, includes an examination of water quality, the maintenance of stable minimum flows, fisheries (including fish passage), vegetation and wildlife, geological resources, visual resources, cultural resources, aesthetic resources, and recreation.

21. The Settlement Offer will have many beneficial effects. Water level fluctuations in Great Sacandaga Lake will be moderated, enhancing conditions for fisheries and wetlands and reducing the potential for erosion of the shorelines. The modified releases from Conklingville Dam will have beneficial environmental effects downstream by allowing for the provision of minimum flows downstream of the Feeder Dam Project and base flows downstream of the Stewarts Bridge Project to improve water quality and fish habitat. Benefits of the Settlement Offer in addition to those related to operation of Great Sacandaga Lake include measures to protect against turbine entrainment and fish passage at Stewarts Bridge, Hudson River, and Feeder Dam, and recreational enhancements, including whitewater releases, access trails, campgrounds, canoe/boat take-outs and put-ins, and portage trails.²⁴

²¹33 U.S.C. § 1341(a)(1).

²²33 U.S.C. § 1341(d).

²³See *American Rivers v. FERC*, 229 F.3d 99 (D.C. Cir. 1997).

²⁴See EIS Sections V.B.1., V.B.2, and V.B.5.

Project Nos. 2482-014 and 2482-029

- 9 -

22. The Hudson River license will provide for reduced impoundment fluctuation, dependable base flows, protection of fish against turbine entrainment, downstream fish passage, recreational flow releases, and improved recreation facilities. All of these improvements will enhance the benefits of this project to the public.

23. Based on the EIS prepared for all of the license applications, the Commission concludes that issuance of a new license for the Hudson River Project, as conditioned herein, will not result in any major, long-term adverse environmental impacts.

SECTION 18 FISHWAY PRESCRIPTIONS

24. Section 18 of the FPA,²⁵ states that the Commission shall require construction, maintenance, and operation by a licensee of such fishways as the Secretaries of Commerce or the Interior may prescribe. Section 2.3 of the Settlement Offer requests the Commission to include in the new license a reservation of the Secretary of the Interior's authority to require the construction, operation, and maintenance of fishways. Consistent with Commission practice, Article 408 includes the requested reservation.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

25. Section 10(j)(1) of the FPA²⁶ requires the Commission, when issuing a license, to include conditions based on the recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,²⁷ for the protection and enhancement of fish and wildlife and their habitat affected by the project. The recommendations of the fish and wildlife agencies for the Hudson River Project, as now reflected in the Settlement Offer, are included in the license.

THREATENED AND ENDANGERED SPECIES

26. Section 7(a) of the Endangered Species Act (ESA)²⁸ requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally

²⁵16 U.S.C. § 811.

²⁶16 U.S.C. § 803(j)(1).

²⁷16 U.S.C. § 661 *et seq.*

²⁸16 U.S.C. § 1536(a)(2).

listed threatened and endangered species, or result in the destruction or adverse modification of designated critical habitat.

27. Two federally listed species, the threatened bald eagle, and the endangered Karner blue butterfly are known to occur or could occur in the area of the Hudson River Project.²⁹ The draft EIS included a Biological Assessment (BA), which found that the bald eagle has been documented in and within the vicinity of the Hudson River project area, but that its appearance appears to be transient in nature. The BA found that issuing the license for the Hudson River Project would have no effect on bald eagles.³⁰ The FWS service comments on the draft EIS do not discuss the bald eagle.

28. The Karner blue butterfly may occur in the vicinity of the Hudson River and Feeder Dam projects due to the presence of its host plant, blue lupine, in the transmission corridors occurring within the vicinity of these projects. USFWS recommends that Erie conduct an evaluation to determine the presence or absence of Karner blue butterfly or blue lupine, at both projects.³¹ If either the butterfly or blue lupine are present, USFWS recommends implementation of appropriate measures to protect the species and its habitat. The BA included in the draft EIS recommended measures consistent with this recommendation and found that, if implemented, the Hudson River Project would have no effect on Karner blue butterflies. The USFWS comments on the draft EIS do not discuss the Karner blue butterfly. The license includes the recommended protection measures.³²

COMPREHENSIVE PLANS

29. Section 10(a)(2)(A) of the FPA³³ requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving,

²⁹The bald eagle is also listed as threatened by New York.

³⁰Draft EIS, p. 104.

³¹Letter from D.A. Stillwell, USFWS, to R. Feller, Chief, Land Resources Section, Division of Environmental and Engineering Review, filed March 24, 2000.

³²See Article 407.

³³16 U.S.C. § 803(a)(2).

Project Nos. 2482-014 and 2482-029

- 11 -

developing, or conserving a waterway or waterways affected by the project.³⁴ Federal and state agencies filed 29 qualifying comprehensive plans, of which we identified three federal and six state comprehensive plans that are applicable.³⁵ We did not find any inconsistencies.

APPLICANT'S PLANS AND CAPABILITIES

30. In accordance with Sections 10 and 15 of the FPA,³⁶ we have evaluated Erie's record as a licensee with respect to the following: (1) conservation efforts; (2) compliance history and ability to comply with the new license; (3) safe management, operation, and maintenance of the project; (4) ability to provide efficient and reliable

³⁴Comprehensive plans are defined at 18 CFR 2.19 (2000).

³⁵(1) Fish and Wildlife and Canadian Wildlife Service, North American Waterfowl Management Plan: A Strategy for Cooperation, U.S. Department of the Interior and Environment Canada, Washington, D.C., 1986; (2) Fish and Wildlife: Fisheries USA: The Recreational Fisheries Policy of the U.S. Fish and Wildlife Service, Washington, D.C., undated; (3) Adirondack Park Agency, Adirondack Park State Land Master Plan, Ray Brook, New York, January 1985; (4) Adirondack Park Agency, New York State wild, scenic, and recreational rivers system field investigation summaries, Albany, New York, 21 reports, undated; (5) New York State Wild, Scenic, and Recreational River System Act, Albany, New York, March 1985; (6) New York State Executive Law, Article 27 - Adirondack Park Agency Act, Albany, New York, July 1, 1981; (7) New York Department of Environmental Conservation, Regulation for Administration and Management of the Wild, Scenic, and Recreational River Systems in New York State excepting Adirondack Park, Albany, New York, March 26, 1986; (8) New York State Parks, Recreation, and Historic Preservation, State Comprehensive Outdoor Recreation Plan, 1994; (9) New York State Department of Environmental Conservation. 1979. Hudson River Basin Water and Related Land Resources; Level B Study Report and Environmental Impact Statement. Albany, New York. September 1979; (10) New York State Office of Parks, Recreation, and Historic Preservation. 1983. People, Resources, Recreation. Albany, New York. March 1983; (11) State of New York Hudson River Regulating District. 1923. General Plan for the Regulation of the Flow of the Hudson River and Certain of its Tributaries. Albany, New York. June 7, 1923.

³⁶16 U.S.C. §§ 803 and 808.

Project Nos. 2482-014 and 2482-029

- 12 -

electric service; (5) need for power; (6) transmission service; (7) cost effectiveness of plans; and (8) actions affecting the public.

A. Consumption Efforts

31. Erie is an independent power producer, not an electric utility, and, as such, is not required to address the energy efficiency improvement programs as required by Section 10(A)(2) of the FPA.

B. Compliance History and Ability to Comply with New Licenses

32. In accepting the transfer of the license from Niagara Mohawk, Erie agreed to accept all of the responsibilities, terms, and conditions of the existing license and the FPA. Erie has not been out of compliance with the license since it was transferred from Niagara Mohawk. We have no reason not to believe that Erie can satisfy the conditions of a new license.

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

33. We have reviewed the record of management, operation, and maintenance of the Hudson River Project pursuant to project safety. We conclude that the dam and other project works are safe, and we have no reason not to believe that Erie will safely manage, operate, and maintain these facilities under a new license.

D. Ability to Provide Efficient and Reliable Service

34. In accepting the transfer of the license from Niagara Mohawk, Erie agreed to accept all of the responsibilities, terms, and conditions of the existing license and the FPA.

35. We reviewed Erie's plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Erie has an ongoing preventative maintenance tracking system. Maintenance personnel routinely perform service and repair tasks to keep the project in good operating condition. Daily checks of the equipment at Erie's projects are made by a travelling operator, who can send

Project Nos. 2482-014 and 2482-029

- 13 -

maintenance crews to repair and restore operation in a timely manner to reduce down time losses.

36. Based on our review of the information, we have no reason not to believe that Erie will operate the project in an efficient manner within the constraints of the existing license and that the project will continue to provide efficient and reliable electric service in the future.

E. Need for Power

37. The EIS reviews the need for power in the context of the operating region in which it is located. Erie sells energy to Niagara Mohawk and others to meet their customers' needs throughout upstate New York. Hudson River produces about 420 gigawatt hours of electricity per year. Operation of the project permits Erie to produce inexpensive and reliable power using a renewable resource.

38. The project is located in the Adirondack Region of the New York Independent System Operator (NYISO) of the Northeast Power Coordinating Council (NPCC) region of the North American Electric Reliability Council (NERC). NERC's most recent report (NERC, 2000) on annual supply and demand projections indicates that, for the period 2000 to 2009, the demand for electric energy in the NPCC region is likely to grow at an average rate of 1.2 percent annually. The project could displace existing and planned non-renewable fossil-fueled generation. In addition, the hydroelectric generation contributes to the diversification of the generation mix in the NYISO area.

39. We conclude that the project's power, low cost, displacement of nonrenewable fossil-fired generation, and contribution to the region's diversified generation mix will help meet a need for power in the region.

F. Transmission Services

40. The project's transmission facilities include the generator leads, station transformers, and buses located at the powerhouse. Erie proposes no changes that would affect transmission facilities.

G. Cost Effectiveness of Plans

41. Erie has no plans for changing project facilities or operations for power development purposes, but is proposing a number of measures for the enhancement of natural resources and recreational opportunities. We conclude, based on the license applications, that Erie's plans for implementing these measures, as well as its continued operation of the project, will be achieved in a cost-effective manner.

H. Actions Affecting the Public

42. The Hudson River project generates electricity used to serve the needs of the public. Erie also pays taxes annually to local and state governments and the project provides employment opportunities. Environmental enhancement measures and recreational improvements included in the license will generally improve environmental quality, particularly in aquatic and wildlife resources, and will have a beneficial effect on public use of project facilities for recreational purposes.

I. Ancillary Services

43. In analyzing public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary benefits). These benefits include their value as almost instantaneous load-following response to dampen voltage and frequency instability on the transmission system, system-power-factor-correction through condensing operations, and a source of power available to help in quickly putting fossil-fuel based generating stations back on line following a major utility system or regional blackout.

ECONOMIC BENEFITS OF PROJECT POWER

44. In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for beneficial public purposes, the Commission considers a number of public interest factors, including the economic benefits of project power.

45. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,³⁷ the Commission employs an analysis that uses current costs to compare the costs of the project and likely alternative power, with no

³⁷72 FERC ¶ 61,207 (1995).

forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basis 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 reasonable alternatives to project power. The estimates helps to support an informed decision concerning what is in the public interest with respect to a proposed license. In making its decision, the Commission considers the project power benefits both with the applicant's proposed mitigation and enhancement measures and with the Commission's modifications and additions to the applicant's proposal.

46. As proposed by Erie, and taking into account the estimated costs of the Settlement Offer, the Hudson River project would produce an average of 420.4 gigawatt-hours (GWh) of energy annually at an annual cost of about \$6,383,000 or 15.18 mills per kilowatt-hour (mills/kWh). Based on the cost of replace the project power with natural gas fueled combustion turbines, which the Commission staff considers to be the most likely alternative power source for this project, the staff determined that the current annual value of the project's power would be about \$18,650,000 or 44.35 mills/kWh. To determine whether the proposed project is currently economically beneficial, we subtract the project's cost from the value of the project's power. Thus, based on current costs, the project would have economic benefits over the new license term, costing about \$12,260,000 (or 29.17 mills/kWh) less than the current cost of alternative power.

OTHER MATTERS

Impacts on Downstream Hydropower Generation

47. The Order Approving Settlement Offer discusses the concerns of AHDC that operation of the Great Sacandaga Lake Project and Erie's downstream projects pursuant to the Settlement Offer may reduce generation at its own projects downstream from Feeder Dam, and concludes that Erie and the District should develop a plan, in consultation with AHDC, to determine the extent, if any, of such impacts. Article 302 incorporates this requirement.

LICENSE TERM

48. Pursuant to Section 15(e) of the FPA,³⁸ relicense terms shall not be less than 30 years nor more than 50 years from the date on which the license is issued. Our general

³⁸16 U.S.C. § 808(e).

Project Nos. 2482-014 and 2482-029

- 16 -

policy is to establish 30, 40, or 50-year terms for projects with little, moderate, or extensive redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures, respectively.

49. The Settlement Offer contemplates a 40-year license term for all of the licenses. Because the term of the licenses was likely an important element in the negotiations that led to the Settlement Offer, and because the applicants propose moderate environmental mitigation and enhancement measures, we will issue the license for a term of 40 years.

SUMMARY OF FINDINGS

50. The EIS includes background information, analysis of impacts, discussion of enhancement measures, and support for related license articles. The project, with the required measures contained in this license, will not result in any major, long-term adverse environmental impacts.

51. 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.

52. Based on our review of the agency and public comments, and our evaluation of the environmental and economic effects of the proposed project and its alternatives pursuant to FPA Section 10(a)(1), we find that the Hudson River Project, with the conditions attached hereto, will be best adapted to the comprehensive development of the Hudson River Basin for all beneficial public purposes.

The Commission orders:

(A) This license is issued to Erie Boulevard Hydropower LP (Licensee) for a period of 40 years, effective the first day of the month in which the license is issued, to operate and maintain the Hudson River Project No. 2482. This license is subject to the terms and conditions of the Federal Power Act (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:

Project Nos. 2482-014 and 2482-029

- 17 -

(1) All lands, to the extent of the Licensee's interests in those lands, enclosed by the project boundary as described and shown by Exhibit G included in the application for new license filed on December 19, 1991.

Exhibit G:

Drawing	FERC No. 2482-	Showing
1	1001	Spier Falls Development - Project Boundary and Location Map
2	1002	Spier Falls Development - Project Boundary and Location Map
3	1003	Sherman Island Development - Project Boundary and Location Map
4	1004	Sherman Island Development - Project Boundary and Location Map

(2) The following features:

Spier Falls: (a) a 638 acre impoundment with a normal maximum water surface elevation of 436.8 feet National Geodetic Vertical Datum (NGVD); (b) three non-overflow concrete gravity dam segments (52 ft, 553 ft, and 306 ft in length) with a maximum height of 145 ft; (c) an 810-foot-long spillway up to 70 ft in height; (d) a 540-foot-long, 120-foot-wide (average), 40-foot-depth (average) forebay canal; (e) two intake structures; one (Unit 8), covering two areas of 16-foot-wide by 35.5-foot-high and two penstocks with openings controlled by 14-foot-wide and 15-foot-high electric motor-operated steel gates; and another (Unit 9), covering four areas of 14.75-foot-wide by 42.75-foot-high and eight penstocks (four of which are sealed) with openings controlled by 12-foot-wide and 17.5-foot-high electric motor-operated steel gates; (f) two conjoined powerhouses containing Unit 8 with one 6.8 MW installed capacity, vertical Francis turbine and Unit 9 with one 37.6 MW installed capacity, vertical Francis turbine, and (g) appurtenant equipment and controls. There are no transmission lines or transmission facilities included in the existing development.

Sherman Island: (a) a 305 acres impoundment with a normal maximum water surface elevation of 353.3 feet NGVD; (b) a 1,533-foot-long, 67-foot-high (maximum)

Project Nos. 2482-014 and 2482-029

- 18 -

buttressed and gravity non-overflow dam; (c) a spillway topped with 3.7-ft and 5.7-foot-high wooden flashboards; (d) an 133-foot-long, 42-foot-high (maximum) concrete wingwall; (e) a 340-foot-long, 100-foot-wide, 39-foot-deep (maximum) forebay; (f) a trapezoidal shaped 3,100-foot-long with a 32-foot-wide bottom width, 120-foot-wide top width, 29-foot-deep (average) power canal conveying water to the intake; (g) a 122.5-foot-long, 40-foot-wide, 42-foot-high concrete gate; (h) 15 penstocks (three of which are sealed) 200-foot-long, 10.7-foot-wide and ten feet high; (i) a powerhouse containing four, 7.2 MW installed capacity, vertical Francis turbines and generating units; (j) a 209-foot-long tailrace; and (k) appurtenant equipment and controls. There are no transmission facilities or lines included in the existing development.

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

Exhibit A:

Pages A-1 through A-13 describing the existing mechanical, electrical and transmission equipment, filed December 19, 1991.

Exhibit F:

Drawing	FERC No. 2482-	Showing
1	1005	Spier Falls Development General Plan and Details of Dam
2	1006	Spier Falls Development Plan and Sections - Intake and Powerhouse
3	1007	Sherman Island Development General Plan and Details of Headrace

Project Nos. 2482-014 and 2482-029

- 19 -

4	1008	Sherman Island Development Plan, Elevation and Sections - Spillway and Dam
5	1009	Sherman Island Development Plan, Elevation and Sections - Intake and Powerhouse
6	1010	Sherman Island Development Spillway Rubber Dam Plan and Sections - Minimum Flow Unit Sections

(3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, 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 as designated in ordering paragraph (B) above are approved and made part of the license.

(D) This license is subject to the water quality certification conditions submitted by the New York Department of Environmental Conservation pursuant to Section 401(a)(1) of the Clean Water Act. The water quality certificate is Appendix A to this order.

(E) This license is subject to the articles set forth in Form L-3, 54 FPC 1817 (October 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States," and the following additional articles:

Article 201. The licensee shall pay the United States an annual charge effective the first day of the month in which this license is issued, for the purpose of reimbursing the United States for the Commission's administrative costs, pursuant to 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 73,200 kilowatts.

Project Nos. 2482-014 and 2482-029

- 20 -

Article 202. Pursuant to Section 10(d) of the Federal Power Act, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. The licensee shall set aside in a project amortization reserve account at the end of each fiscal year one half of the project surplus earnings, if any, in excess of the specified rate of return per annum on the net investment.

To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year, the licensee shall deduct the amount of that deficiency from the amount of any surplus earnings subsequently accumulated, until absorbed. The licensee shall set aside one-half of the remaining surplus earnings, if any, cumulatively computed, in the project amortization reserve account. The licensee shall maintain the amounts established in the project amortization reserve account until further order of the Commission.

The specified reasonable rate of return used in computing amortization reserves shall be calculated annually based on current capital ratios developed from an average of 13 monthly balances of amounts properly includible in the licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rate for such ratios shall be the weighted average cost of long-term debt and preferred stock for the year, and the cost of common equity shall be the interest rate on 10-year government bonds (reported as the Treasury Department's 10 year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 203. The licensee shall file, within 45 days of license issuance, three sets of aperture cards of the approved exhibit drawings. The sets must be reproduced on silver or gelatin microfilm and mounted on type D (3 1/4" X 7 3/8") aperture cards.

Prior to microfilming, the FERC Drawing Numbers 1001 through 1010 shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number must be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (e.g., F-1, G-1, etc.), Drawing Title, and date of this license must 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: OEP/DHAC. The remaining duplicate set of aperture cards shall be filed with the Commission's New York Regional Office).

Article 204. If the licensee's project was directly benefitted by the construction 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 extension 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 new license.

Article 301. Within 90 days of completion of construction of the facilities directed by any article of this license (trashracks, fish passage, pneumatic flashboards, recreation, etc.), the licensee shall file for Commission approval revised Exhibits A, B, F, and G, as appropriate, to show those project facilities as built.

Article 302. (a) Within one year from the date of issuance of this license, the licensee shall file for Commission approval a plan to consult with the holder(s) of the licenses for South Glens Falls Project No. 5461, Hudson Falls Project No. 5276, Northumberland Project No. 4244, and Waterford Project No. 10648 concerning means for determining whether operation of the licensee's Project Nos. 2047, 2318, 2482, and 2554 reduces generation at those projects. The licensee shall prepare the plan in consultation with the licensee(s) for Project Nos. 4244, 5276, 5461, and 10648 and the Hudson River-Black River Regulating District.

(b) 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 consulted entities, and specific descriptions of how the consulted entities' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the consulted 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.

(c) 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 401. *Streamflow and Water Level Monitoring.* (a) The licensee shall, within six months of the date of issuance of the license, submit for Commission approval a stream flow and water level monitoring plan for the Sacandaga and Hudson Rivers in the vicinity of Project Nos. 2047, 2318, 2482, and 2554. The plan shall include all gages

or equipment to: (1) determine the stage and/or flow of the Sacandaga and Hudson Rivers at appropriate locations; (2) determine all other project flows, including flows through the project turbines, gates, weirs or other flow regulating structures; (3) determine headpond and tailwater elevations as needed; and (4) provide an appropriate means of independent verification of minimum or base flow levels by the New York State Department of Environmental Conservation (NYSDEC), U.S. Fish and Wildlife Service (USFWS), and the public.

(b) All gaging and ancillary equipment required by the monitoring plan, including headpond and tailwater gages, shall be made operational and fully calibrated within 12 months of license issuance, with the exception that monitoring of the Stewarts Bridge Project No. 2047 base flow will be commensurate with the implementation of the base flow for that project on January 1, 2013. Monitoring of the base flow at Stewarts Bridge shall be done in the tailrace, a short distance downriver from the powerhouse, or through a calibrated orifice measurement. A staff gage, calibrated to conspicuously show the appropriate base flow levels, will also be provided for independent verification by the public.

(c) The plan shall include provisions for the licensee to keep accurate and sufficient records of the impoundment elevations and all project flows to the satisfaction of NYSDEC and shall provide such data and at intervals as required by NYSDEC. All records will be made available for inspection at the licensee's principal business office within New York State within five (5) business days, or will be provided in written form within 30 days of the licensee's receipt of a written request for such records by any party to the Settlement Offer concerning relicensing of Upper Hudson River and Sacandaga River projects submitted to the Commission on April 12, 2000, with technical corrections filed July 30, 2000 (Settlement Offer). The licensee shall also provide to NYSDEC a seven-day-per-week contact person to provide immediate verification of monitored flows and responses to questions about abnormal or emergency conditions. Development of the plan shall include consideration by the licensee of the feasibility of Internet-type posting of these records.

(d) The plan shall contain provisions for the installation of staff gages at appropriate locations to permit independent verification of headpond and tailwater elevations to the nearest 0.1 foot. Staff gages will be visible to the general public. Stage versus flow ratings shall be calibrated when rating changes occur, and maintained for the subject projects. Access to staff gages shall be provided to the NYSDEC, USFWS and, in the case of staff gages at the licensee's facilities on the Sacandaga River, to Fulton and Saratoga Counties, New York, and /or their authorized representatives.

(e) The plan shall also provide for the licensee to keep accurate and sufficient record of the following incidents: (1) any uncontrollable station outage that causes a reduction in the required base flows at Stewarts Bridge Project No. 2047 or Feeder Dam Project No. 2554; (2) any uncontrollable station outage that causes a reduction in the required minimum flow at the Sherman Island Development of the Hudson River Project No. 2482; (3) any mis-operation of a flow release device which causes a reduction in the required base flows at Stewarts Bridge or required minimum flow at Sherman Island.

(f) The plan shall be prepared in consultation with the Hudson River-Black River Regulating District (as it concerns the Regulating District's operations), NYSDEC, USFWS, Fulton and Saratoga Counties, New York and the parties to the Settlement Offer. The licensee shall include with the filed plan documentation of consultation with these entities and copies of comments and recommendations, and a specific description of how the plan accommodates the comments and recommendations. The licensee shall allow a minimum of 30 days for the consulted entities to comment and make recommendations on the plan before it is filed 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.

Article 402. *Streamflow Reporting Requirement.* The licensee shall, within six months of the date of issuance of the license, submit for Commission approval a plan for reporting the incidents described in paragraph (e) of Article 401. The plan shall be prepared in consultation with the New York State Department of Environmental Conservation (NYSDEC). The licensee shall include with the filed plan documentation of consultation and copies of comments and recommendations, and a description of how the plan accommodates 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 Commission reserves the right to require changes to the plan. Upon Commission approval, the licensee shall implement the plan.

Article 403. *Impoundment Fluctuation.* (a) From the start of walleye spawning (about March 15) until June 15 of each year, daily impoundment fluctuations at the Spiers Falls and Sherman Island Developments will be limited to one foot (between elevations 435.8 and 436.8 feet NGVD at Spier Falls and 352.3 and 353.3 NGVD at Sherman Island). The actual start time for limitations on impoundment fluctuation will depend on water temperatures for walleye spawning in accordance with the New York Department of Environmental Conservation's Definition of walleye spawning season; i.e., when water temperature reaches 4 degrees Celsius (39.2 degrees Fahrenheit) for four

consecutive days after March 15th of each year. During the remainder of the year, daily impoundment fluctuations will be limited to two feet (between elevations 434.8 and 436.8 NGVD at Spiers Falls and 351.3 and 353.3 NGVD at Sherman Island. The licensee shall consult with the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Fish and Wildlife Service prior to the first walleye spawning season following license issuance to determine the location(s) for monitoring water temperatures to be used to define the beginning and end of walleye spawning season.

(b) Within six months of license issuance, the licensee shall submit for Commission approval plans and specifications for the installation of pneumatic flashboards on the straight section of the spillway near the non-overflow section of the Sherman Island Dam to facilitate pond level control. The pneumatic flashboard will be designed to allow the 10-year flood to pass the dam without failing the remaining wooden flashboard sections. Whenever replacement of the wooden flashboards becomes necessary due to the failure of these flashboards, the licensee will first consult with NYSDEC regarding the scheduling of flashboard replacement. The licensee will work diligently to start and complete the installation of replacement flashboards as quickly as possible either before the onset of walleye spawning season as defined in subsection (a) of this article, or after June 15. During the interval of time between the onset of walleye spawning and June 15, NYSDEC and the licensee may, after consultation, agree on an alternative schedule for flashboard replacement for that year.

(c) At least 60 days prior to the start any construction to install pneumatic flashboards at Sherman Island Dam, the Licensee shall submit three copies of a supporting design report and plans and specifications to the Commission's New York Regional Office, Division of Dam Safety and Inspections, and one copy of such plans and specifications to the Director, Division of Dam Safety and Inspections. The Licensee may not begin construction until the New York Regional Engineer has approved in writing the plans and specifications and determined that all preconstruction requirements have been satisfied. The submittal to the New York Office must also include as part of preconstruction requirements: a Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, and Soil Erosion and Sediment Control Plan. If cofferdam(s) are to be used, the Licensee shall submit to the New York Regional Engineer at least 30 days prior to commencement of construction a copy of the cofferdam plans with a certified letter from the Licensee accepting any contractor-designed cofferdam(s).

(d) Until flashboard reinstallation begins, the licensee will maintain a maximum daily operational drawdown of six (6) inches below the Sherman Island spillway crest elevation (349.6 feet NGVD). A special exception to permit a maximum drawdown to 1.0 feet below spillway crest elevation is permitted for those hours when people are to be actually working on the dam crest installing flashboards. Once flashboard installation is complete, normal operations will resume.

Article 404. Fish Protection and Downstream Movement. (a) In order to protect against entrainment of resident fish into the project turbines, the licensee will install full trash racks overlays with maximum clear spacing of one inch at the Sherman Island Development in 2006 and at the Spier Falls Development in 2010. The dates of installation may be changed with the mutual consent of the New York State Department of Environmental Conservation (NYSDEC), the U.S. Fish and Wildlife Service (USFWS), and the licensee.

(b) To afford a route of downstream movement for fish, the licensee will discharge a continuous flow of 25 cubic feet per second (cfs) through modifications to the existing trash sluice at Spier Falls and through modifications to the existing ice sluice located adjacent to the powerhouse at Sherman Island, beginning at the time the trash rack overlays are installed. The licensee shall, if necessary, implement the following fish protection measures described in Section 2.8 of the Settlement Offer filed April 12, 2000: (1) reduce the roughness of sluice spillway faces; (2) reduce dispersion of conveyance flow releases across the spillway face; (3) construct plunge pools at the toe of the spillways with a depth of approximately 25 percent of the vertical distance of any free fall.

(c) The licensee shall submit plans and specifications for the trash rack overlays and sluiceway modifications identified in subsection (a) of this article no later than 90 days prior to the proposed commencement of construction. The plans and specifications shall be developed in consultation with NYSDEC and USFWS. The licensee shall include with the filed plans and specifications documentation of consultation and copies of comments and recommendations, and a description of how the plans and specifications 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 Commission reserves the right to require changes to the plans and specifications. No in-water construction work shall begin until the plans and specifications are approved. Upon Commission approval of the plans and specifications, the licensee shall complete installation of the Sherman Island trash rack

overlays by December 31, 2006 and the Spier Falls trash rack overlays by December 31, 2010.

(d) Operation of downstream fish conveyance or protection measures may be temporarily curtailed or suspended if required by special circumstances, include: (1) maintenance, repair, or reconstruction of project facilities; (2) maintenance, repair, or reconstruction of non-project facilities such as roads, bridges, or other structures in, or adjacent to, Hudson River; and (3) any emergency situation related to dam safety, human life and property, or rescue operations.

Curtailment or suspension of downstream fish conveyance and protection measures shall be for the minimum duration necessary. Downstream fish conveyance and protection measures shall be restored as soon as possible after the circumstance for which they have been curtailed or suspended is completed. Before curtailing or suspending the operation of such measures, the licensee shall consult with the NYSDEC regarding the needed to curtail or suspend the measures. Advance consultation with NYSDEC shall not be deemed necessary in the case of an emergency where consultation would impair the licensee's ability to time address immediate danger to dam safety, human life, or property. In such circumstances, the licensee shall notify NYSDEC with 72 hours of the emergency situation requiring curtailment or suspension of downstream fish conveyance and of the steps taken in response to the emergency by the licensee. The licensee shall notify the Commission of the emergency situation and the measures taken ,as soon as possible, but in no case later than 10 days, following each such incident.

Article 405. Minimum Flows. (a) The minimum flows provided for in this article shall be provided within 18 months of license issuance, unless otherwise noted. No minimum flows are required at the Spier Falls development, except as part of the provision for fish passage in Article 404.

(b) A minimum flow will be provided throughout the year of 100 cubic feet per second (cfs) (varying between 99 and 101 cfs) in the North Channel and 150 cfs (varying between 148 and 152 cfs) in the South Channel of the Sherman Island Development.

(c) Beginning with the first walleye spawning season following license issuance, the year round minimum flows in the North and South Channels will be increased during walleye spawning season so that the combined flows discharged into the North and South Channels are no less than 675 cfs (varying between 672 and 678 cfs). Walleye spawning flows will commence some time after March 15 and last until some time in May or early June in accordance with the New York State Department of Environmental

Project Nos. 2482-014 and 2482-029

- 27 -

Conservation's (NYSDEC) definition of Walleye Spawning Season, *i.e.*, beginning when water temperature reaches 4 degrees Celsius (39.2 degrees Fahrenheit) for four consecutive days after March 15th of each year, and ending 30 days after water temperature has reached 10 degrees Celsius (50 degrees Fahrenheit) for four consecutive days.

(d) Within six months of the date of issuance of the license, the licensee shall submit for Commission approval a plan and schedule for constructing facilities necessary to discharge the minimum flow from the intake structure at the south end of the buttress dam, non-overflow section. The minimum flow from the intake structure will be diverted through the north and south channels by the use of a submerged weir placed across the north channel, and shall be high enough to overcome hydraulic control that restricts water from the south channel. The minimum flow facility shall be designed to limit injury to fish passing through it.

The plan and schedule shall be developed in consultation with the New York Department of Environmental Conservation and the U.S. Fish and Wildlife Service. The licensee shall include with the filed plans and schedule documentation of consultation and copies of comments and recommendations, and a description of how the plans and specifications accommodate the comments and recommendations. The license shall allow the consulted entities at least 30 days to make 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 Commission reserves the right to require changes to the plans and specifications. Upon Commission approval, the licensee shall implement the approved plan.

(e) Minimum flow releases required by this article 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 NYSDEC. If the flow is so modified, the Commission shall notify the Commission as soon as possible, but no later than 10 days after each such incident, and shall provide the reason for the modified flow.

Article 406. Recreation Facilities. (a) The licensee shall permit public access across its lands to the shoreline of the Spier Falls and Sherman Island Developments where project facilities, hazardous conditions, and leases, easements, and private

Project Nos. 2482-014 and 2482-029

- 28 -

ownership along the shorelines existing at the time of issuance of the license do not preclude it.

(b) Within six months of the date of issuance of the license, the licensee shall submit for Commission approval a plan and schedule for constructing the following recreational improvements and facilities:

1. Modifications to the Spier Falls boat launch, to include: (1) parking space that complies with the Americans with Disabilities Act (ADA); (2) a low-angle access trail to the picnic area and water's edge for wheelchair use; (3) new picnic tables, at least one of which will accommodate comply with the ADA; and, (4) if feasible, regrading of the boat launch area to a gentler slope.
2. Construction of a canoe portage trail around the north side (left bank) of the Spier Falls dam, to include: (1) measures to minimize ground disturbance and the potential for soil erosion during construction of the put-in and take-out areas, as well as the clearing of the trail; (2) and signs at water's edge signifying the location of the take-out.
3. Construction of two water-access only campsites on the Spier Falls impoundment, to include: (1) measures designed and developed in consultation with the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) to minimize ground disturbance, and (2) fire rings and canoe pull-out areas at the water's edge.
4. Modifications to the Sherman Island boat launch to include: (1) measure to improve parking and traffic flow; (2) a parking space that complies with the Americans with Disabilities Act (ADA); (3) a low-angle access trail to the water's edge and picnic area; (4) additional picnic tables; at least one of which complies with the ADA; and (5) the installation of privies on a trial basis.
5. Construction of a canoe portage trail around the south (right bank) of the Sherman Island dam, to include: (1) measure to minimize ground disturbance and the potential for soil erosion during construction of the put-in and take-out areas, as well as the clearing of the trail; and (2) signs at water's edge signifying the location of the take-out.

6. Construction of two water access-only campsites on the Sherman Island impoundment, in include: (1) measures designed and developed in consultation with the NYSOPRHP to minimize ground disturbance, and (2) fire rings and canoe pull-out areas at the water's edge.

7. Construction of angler access to the Sherman Island bypassed reach, to include: (1) a parking area for four cars off Potter Road; and (2) a foot trail leading along the existing maintenance road to the south side (right bank) of the reach. The design of the facilities is intended to coincide with public road improvements planned and proposed for the Potter Road Residential Subdivision (Subdivision) being pursued by Niagara Mohawk Power Corporation. If the Subdivision is developed, the parking area shall be next to the licensee's maintenance road gate, and the licensee shall apply to amend the project boundary to exclude the Subdivision. If the Subdivision is not developed, the parking area shall be along the Potter Road entrance to the project boundary existing at the time of issuance of the project license and the access trail shall be extended to the parking area.

(c) The plan and schedule shall be developed in consultation with the New York Department of Environmental Conservation and, where indicated in subsection (b) of this article, the NYSOPRHP. The licensee shall include with the filed plans and specifications documentation of consultation and copies of comments and recommendations, and a description of how the plans and specifications 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 Commission reserves the right to require changes to the plans and specifications. Upon Commission approval, the licensee shall implement the approved plan.

Article 407. Threatened and Endangered Species. (a) Within six months of the issuance of this license, and sixty days prior to any project-related ground disturbing activities, the licensee shall submit a plan and schedule to conduct surveys for the Karner blue butterfly and blue lupine. The plan shall include, but not be limited to: (1) identification of potential survey sites and areas that could be excluded from the survey, (2) measures to be taken to protect the Karner blue butterfly and blue lupine if found in the survey sites, (3) steps to be taken to insure implementation of appropriate protective measures, and (4) an implementation schedule.

(b) The plan and schedule shall be developed in consultation with the U.S. Fish and Wildlife Service (FWS). The licensee shall include with the filed plan and schedule

documentation of consultation and copies of comments and recommendations, and a description of how the plan and schedule accommodate the comments and recommendations. The licensee shall allow a minimum of 30 days for the FWS to make 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 Commission reserves the right to require changes to the plan and schedule. Upon Commission approval, the licensee shall implement the approved plan. No ground-disturbing or land-clearing activities shall begin, unless in an area that is excluded from the survey in the approved plan, until the licensee is notified that the plan is approved.

(c) A draft report documenting the results of the survey shall be filed with the FWS for review and comment. The licensee shall allow a minimum of 30 days for the FWS to make comments and recommendations before filing the report with the Commission.

Article 408. *Reservation of Authority.* Authority is reserved by the Commission to require the licensee to construct, operate, and maintain, or to provide for construction, operation, and maintenance of, such fish passage facilities as may be prescribed by the Secretary of the Interior under Section 18 of the Federal Power Act.

Article 409. *Cultural Resources.* The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, and the New York State Historic Preservation Officer for Managing Historic Properties That may be Affected by a License Issuing to Niagara Mohawk Power Corporation, Beebee Island Corporation, or Moreau Manufacturing Company for the Continued Operation of 14 Hydroelectric Projects in Upstate New York," executed on July 19, 1996 and filed with the Commission July 23, 1996, including but not limited to the Cultural Resources Management Plan (CRMP) for the project. In the event that the Programmatic Agreement is terminated, the licensee shall implement the provisions of its approved CRMP. The Commission reserves the authority to require changes to the CRMP at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the CRMP, the licensee shall obtain approval before engaging in any ground-disturbing activities or taking any other action that may affect any historic properties within the project's area of potential effect.

Article 410. Reporting Requirement. (a) On or before April 1 of each year, the licensee shall file with the Commission a statement reporting the following information pertaining to the three annual enhancement funds described in Sections 8.3.1, 8.3.2, and 8.3.3 of the Offer of Settlement filed with the Commission on April 12, 2000, as modified on July 30, 2000, in Project Nos. 2047-011, et al.: (1) a description of the amount of money and activities on which the respective enhancement funds were spent during the preceding calendar year at the direction of the Advisory Councils established by Sections 8.2.1 (Great Sacandaga Lake Enhancement Fund), 8.2.2 (Hudson/Sacandaga River Enhancement Fund), and 8.3.3 (Fisheries Enhancement Fund) of the Offer of Settlement; and (2) the amount of money the licensee will contribute to the enhancement funds during the calendar year of the report pursuant to the respective provisions of Section 8.3.1, 8.3.2, and 8.3.3 of the Offer of Settlement.

(b) The one-time \$25,000 whitewater enhancement fund described in Section 8.3.4 of the Offer of Settlement shall be subject to a single report filed with the Commission by the licensee after that fund has been exercised. The report shall describe the amount of the fund used and the activities on which the fund was spent.

Article 411. Procedural Requirements. The licensee shall comply with the procedural requirements found in Section 2.5 (Dispute Resolution), 2.6 (Reopeners), and 2.7 (License Amendments) of the Settlement Offer filed April 12, 2000, as amended July 30, 2001, and approved at 101 FERC ¶ _____ (2002).

Article 412. Uses and Occupancies. (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

Project Nos. 2482-014 and 2482-029

- 32 -

to correct the violation. For a permitted use and occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying 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) non-commercial 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:

- (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 the standards, guidelines, and procedures

Project Nos. 2482-014 and 2482-029

- 33 -

for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

- (c) The licensee may convey easements or right-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.

- (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;

Project Nos. 2482-014 and 2482-029

- 34 -

- (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 marines 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 Energy Projects, 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 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 ensure 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 change 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 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, proposal 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.

Project Nos. 2482-014 and 2482-029

- 36 -

(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 these entities must accompany the filing with the Commission.

(G) This order is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the Federal Power Act. The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date 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 license.

By the Commission.

(S E A L)

Linwood A. Watson, Jr.,
Deputy Secretary.

Appendix A

Hudson River Project No. 2482 New York Water Quality Certification Conditions #5-9905-00048/00001

A. ADMINISTRATION

1. This certificate includes and incorporates the **Settlement** [filed March 27, 2000, including Technical Corrections filed on July 30, 2000].
2. Inspections: The project, including relevant records, is subject to inspection at reasonable hours and intervals, upon reasonable notice to the certificate holder, by an authorized representative of the Department [of Environmental Conservation] to determine whether the applicant is complying with this certification. A copy of this certification, including the Upper Hudson/Sacandaga River **Settlement** dated March 27, 2000 [including technical corrections filed on July 30, 2000] as well as the FERC license and all maps, drawings and special conditions, must be available for inspection by the Department staff during such inspections at the project.
3. Emergencies: With the exception of emergency provisions described in the **Settlement** (see subsection 2.8), the following procedures shall apply to activities conducted at the Project in response to an emergency:

Prior to commencement of emergency activities, the NYS DEC must be notified and must determine whether to grant approval. If circumstances require that emergency activities be taken immediately such that prior notice to the NYS DEC is not possible, then the NYS DEC must be notified by the certificate holder within 24 hours of commencement of emergency activities. In either case, notification must be made by certified mail, telegram, or other written form of communication, including fax and electronic mail. This notification must be followed within 3 weeks by submission of the following information:

- (1) A description of the action;
- (2) Location map and plan of the proposed action;
- (3) Reasons why the situation is an emergency.

Project Nos. 2482-014 and 2482-029

- 38 -

All notifications, requests for emergency authorizations and information submitted to support such requests shall be sent to the Regional Permit Administrator at:

New York State Department of Environmental Conservation
Regional Permit Administrator
232 Hudson Street, P.O. Box 220
Warrensburg, N.Y. 12885

4. Modifications and Revocations: The DEC reserves the right to modify or revoke this certificate when:
- 1) the scope of the authorized activity is exceeded or a violation of any condition of this certificate or provisions of the [Environmental Conservation Law] and pertinent regulations is found;
 - 2) the certificate was obtained by misrepresentation or failure to disclose relevant facts;
 - 3) new material information is discovered;
 - 4) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the certificate was issued.

B. OPERATING CONDITIONS

5. Minimum Flows Released to Bypass Reaches: The certificate holder shall provide a continuous release of water to the bypassed reach of river located immediately below the Sherman Island dam. Provisions for the release, including flow requirements, shall be in accordance with the **Settlement**, in particular, subsection 6.3.
6. Flow Monitoring: The certificate holder shall develop a stream flow and water level monitoring plan consistent with the **Settlement**, in particular, Section 2.12.
7. Impoundment Fluctuations: The Spier Falls and Sherman Island impoundments shall be operated in accordance with the **Settlement**, in particular subsection 6.1. Alternate impoundment operating plans must be review and approved by NYS DEC prior to being implemented. Emergencies shall be handled in accordance with special condition #3 of this certificate.

8. **Fish Protection and Downstream Movement:** Fish protection provisions and downstream fish movement provisions shall be provided in accordance with the **Settlement**, in particular 2.8, 2.11 and 6.2.

C. PROJECT MAINTENANCE AND CONSTRUCTION

Note : All matters pertaining to "Project Maintenance and Construction" shall be addressed to:

Regional Permit Administrator
New York State Department of Environmental Conservation
P.O. Box 220
232 Hudson Street
Warrensburg, N.Y. 12885

9. **Maintenance Dredging:** The certificate holder shall curtail generation and install stoplogs or otherwise shut off flow through the turbine prior to commencing any maintenance dredging activities in the intake/forebay area of the project.
10. **Sediment Analysis and Disposal:** The certificate holder must sample any sediments to be disturbed or removed from the project waters and test them for contaminants. Sampling and testing shall be accomplished according to a protocol submitted to and approved by the Department prior to sampling.

Prior to dredging or other excavation, the certificate holder must secure Department approval for all upland locations that will be used as disposal sites for any sediments to be removed from the project waters.

11. **Erosion and Sediment Control:** The certificate holder shall ensure that the following erosion and sediment/contaminant control measures, at minimum, are adhered to during routine maintenance and construction that may result in sediments/contaminants entering the Hudson River.
 - a. Isolate in-stream work from the flow of water and prevent discolored (turbid) discharges and sediments caused by excavation, dewatering and construction activities from entering the waters of the Hudson River.

Project Nos. 2482-014 and 2482-029

- 40 -

- b. Prohibit heavy construction equipment from operating below the mean high water level of the Hudson River until the work area is protected by a watertight structure and dewatered.
 - c. Minimize soil disturbance, grade so as to prevent or minimize erosion and provide temporary and/or permanent stabilization of all disturbed areas and stockpiles to minimize the potential for erosion and subsequent sedimentation within the Hudson River.
 - d. Protect all waters from contamination by deleterious materials such as wet concrete, gasoline, solvents, epoxy resins or other materials used in construction, maintenance and operation of the project.
 - e. Install and maintain erosion control structures on the down slope of all disturbed areas to prevent eroded material from entering the Hudson River. Erosion control structures must be installed before commencing any activities involving soil disturbance and all erosion control structures must be maintained in a fully functional condition.
 - f. Ensure complete removal of all dredged/excavated material and construction debris from the bed and banks of the Hudson River.
 - g. Ensure that all temporary fill and other materials placed in the waters of the Hudson River are completely removed, immediately upon completion of construction, unless otherwise directed by the Department.
12. Placement of cofferdams, construction of temporary access roads or ramps, or other temporary structures which encroach upon the bed or banks of the Sacandaga River or Stewarts Bridge Reservoir: The design of all such structures must be approved by the Department prior to installation.
13. Construction Drawdowns: Whenever construction and/or maintenance activities requires lowering the water level of the Project's impoundments below normal operating limits, the water level shall not be drawn down more than one (1) foot per hour. During refill, the water level of the impoundment shall not be allowed to rise more than one foot per hour.

Project Nos. 2482-014 and 2482-029

- 41 -

14. River Flow: During any period of maintenance and/or construction activity, the certificate holder shall continuously maintain adequate flows immediately downstream of work sites consistent with the provisions of this certificate.
15. Turbidity Monitoring: During maintenance or construction-related activities in or near the Hudson River, the certificate holder will monitor the turbidity of project waters at a point immediately upstream of the work area and at a point no more than 100 feet downstream from the work area. The certificate holder specifically agrees that if, at any time, turbidity measurements in the downstream locations exceed the measurements from the upstream locations, all related construction on the project will cease until the source of the turbidity is discovered and remediated such that turbidity is returned to a pre-construction condition.
16. Notifications: The Regional Permit Administrator must be notified in writing at least two weeks prior to commencing any work performed under the authority of this certificate.

D. PUBLIC ACCESS

17. Public access and recreational facilities shall be provided in conformance with the **Settlement**.