

UNITED STATES OF AMERICA 110 FERC ¶ 62,011
FEDERAL ENERGY REGULATORY COMMISSION

City of Norway, Michigan

Project No. 2720-036

ORDER ISSUING NEW LICENSE

(January 6, 2005)

INTRODUCTION

1. On July 29, 2002, the City of Norway, Michigan (Norway) filed an application for a new license pursuant to sections 4(e) and 15 of the Federal Power Act (FPA)¹ to continue operation and maintenance of the 5.136-megawatt (MW) Sturgeon Falls Hydroelectric Project No. 2720. The project is located on the Menominee River, in Dickerson County, Michigan, and Marinette County, Wisconsin.² The project does not occupy any federal lands. As discussed below, I am issuing a new license for the project. Issuing a new license is in the public interest because it would allow the project to continue generating electric energy to serve growing regional demand while protecting and enhancing environmental, recreational and cultural resources.

BACKGROUND

2. The Commission issued the original license for the project on August 31, 1984, and the license expired on July 31, 2004.³ Since then, Norway has operated the project under an annual license pending the disposition of its new license application.

3. Public notice of the license application was issued on August 12, 2002. The Commission also issued public notices on July 2, 2003, soliciting protests and motions to intervene. Timely motions to intervene were filed by the Michigan Department of Natural Resources on August 25, 2003, and by the Michigan Hydro Relicensing Coalition

¹16 U.S.C. §§ 797(e) and 808.

²The Sturgeon Falls Project is located on the Menominee River, at river mile 82, a stretch of the river the Commission found to be a navigable waterway of the United States. Wisconsin Michigan Power Co., 3 FPC 449, 457 (1943).

³28 FERC ¶ 62,318 (1984).

(Coalition)⁴ on July 29, 2003. All of these motions to intervene were automatically granted under 18 CFR section 385.214(c)(1), because they were timely and unopposed.

4. On October 23, 2003, the Commission issued a notice indicating the application was ready for environmental analysis and soliciting comments, recommendations, and terms and conditions. In response, the Commission received comments from the MDNR filed on December 17, 2003, the U.S. Department of the Interior (Interior) filed December 22, 2003, and the Wisconsin Department of Natural Resources (WDNR) filed December 23, 2003. Reply comments were filed by Wisconsin Electric Power Company, doing business as We Energies on January 6, 2004, and by Norway on February 9, 2004.

5. On August 13, 2004, Commission staff issued an environmental assessment (EA). In letters filed September 10, 2004, Interior and MDNR filed comments. On September 15, 2004, WDNR filed comments. All motions to intervene and comments have been fully considered in determining whether, and under what conditions, to issue this license.

PROJECT DESCRIPTION

6. The Sturgeon Falls Project includes a 400-surface-acre reservoir that is split into two channels separated by an island. To the west of the island, the project consists of a 308-foot-long concrete dam with a gated spillway section; and to the east of the island, the project consists of a 300-foot-long forebay canal leading to, a powerhouse with four generating units with a total installed capacity of 5.136 MW.

7. Norway operates the project in a reregulating mode, whereby the 650 acre-feet of storage capacity of the project reservoir is used to moderate upstream projects' peaking flows. Specifically, Norway releases a continuous daily discharge that approximates the daily mean inflow from the Menominee River, with the reservoir maintained at 829.8 ± 1.0 foot National Geodetic Vertical Datum (NGVD). The project is described in greater detail in ordering paragraph (B)(2).

8. Norway proposes to continue operating the project as described above with the same restrictions on the reservoir fluctuation. Norway does not propose any new construction or additional capacity at the project.

⁴The Michigan Hydro Relicensing Coalition is comprised of the Anglers of the Au Sable, Inc., Great Lakes Council, Inc. of the Federation of Fly Fishers, Inc., Michigan United Conservation Clubs, and Michigan Council of Trout Unlimited.

WATER QUALITY CERTIFICATION

9. Under section 401(a)(1) of the Clean Water Act (CWA),⁵ the Commission may not issue a license for a hydroelectric project unless the state water quality certifying agency either has issued water quality certification (WQC) for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed 1 year. Section 401(d) of the CWA provides that state certification shall become a condition of any federal license or permit that is issued.⁶ Only a reviewing court can revise or delete these conditions.⁷

10. Norway requested WQC from the Michigan Department of Environmental Quality (MDEQ) for this project on January 4, 2002.⁸ On July 24, 2002, the MDEQ issued WQC for the project containing 23 conditions.⁹

11. The conditions of the WQC, are set forth in Appendix A. Ordering paragraph D incorporates the certification conditions of Appendix A as conditions of the license. The WQC includes requirements for: (a) releasing daily mean inflow; (b) reservoir level maintenance; (c) installing a reservoir staff gage and downstream flow gage; (d) monitoring for operation compliance; (e) complying with water temperature and dissolved oxygen standards; (f) monitoring water quality, reservoir sediments, and sample fish tissue; (g) developing an erosion control plan; and (h) passing natural debris downstream of the dam.

12. The WQC also requires the licensee to develop an erosion control plan in consultation with the MDNR, MDEQ, and Interior without prior Commission approval,

⁵33 U.S.C. § 1341(a)(1).

⁶33 U.S.C. § 1341(d).

⁷See *American Rivers v. FERC*, 129 F.3d 99 (D.C. Cir. 1997).

⁸By letter dated February 2, 2003, attached to Norway's additional information response filed May 29, 2003, the State of Wisconsin deferred WQC to Michigan.

⁹The Wilderness Shores Settlement Agreement referenced in the WQC was filed on May 15, 1997, in Project No. 1759, *et al.*

and report the results of monitoring. Article 401 requires the licensee to submit this plan to the Commission for approval, and file monitoring results with the Commission.¹⁰

SECTION 18 FISHWAY PRESCRIPTIONS

13. Section 18 of the FPA¹¹ provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate.

14. By letter filed December 22, 2003, Interior requested that the Commission reserve Interior's authority to prescribe fishways. Consistent with Commission policy, article 405 of this license reserves the Commission's authority to require fishways that may be prescribed by Interior for the Sturgeon Falls Project.

THREATENED AND ENDANGERED SPECIES

15. Section 7(a) of the Endangered Species Act of 1973 (ESA)¹² requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of designated critical habitat.

16. There are five federally listed species with the potential to occur in the project area. Bald eagles have been observed in the project area, and the Kirtland's Warbler, the gray wolf, the Canada lynx, and the piping plover have not been documented on project lands. In the EA, staff determined that with their recommended measures, relicensing the Sturgeon Falls Project is not likely to adversely affect the five federally listed species and their habitat. The FWS concurred with this finding by letter filed December 23, 2004. Article 407 requires a land and wildlife management plan that includes measures to protect the bald eagle.

¹⁰I am including in numbered license articles certain provisions for certification conditions for the purpose of adding basic requirements to enable the Commission to enforce the conditions. However, these articles do not purport to, and indeed cannot, alter or override these mandatory conditions, but rather are meant to be complementary to them. *See Avista Corporation*, 93 FERC ¶ 61,116 n. 13 (2000).

¹¹16 U.S.C. § 811.

¹²16 U.S.C. § 1536(a).

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

17. Section 10(j) of the FPA¹³ requires the Commission, when issuing a license, to include conditions based upon recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,¹⁴ to “adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)” affected by the project. If the Commission believes that any such recommendations may be inconsistent with the purpose and requirements of Part I of the FPA, or other applicable law, section 10(j)(2) of the FPA¹⁵ requires the Commission and the agencies to attempt to resolve such inconsistencies, giving due weight to the recommendations, expertise, and statutory responsibilities of such agencies. If the Commission still does not adopt a recommendation, it must explain how the recommendation is inconsistent with Part I of the FPA or other applicable law and how the conditions imposed by the Commission adequately and equitably protect, mitigate damages to, and enhance fish and wildlife resources.

18. The MDNR and Interior provided seven recommendations that fall within the scope of section 10(j).¹⁶ This license includes conditions consistent with each of these recommendations: (1) release daily mean inflow and maintain the reservoir at 829.8 ± 1.0 foot NGVD (article 402); (2) develop an erosion control plan (article 401); (3) develop an operation compliance monitoring plan (article 403); (4) develop a water quality monitoring plan (article 404); (5) develop a bald eagle management plan (article 407); (6) develop a wildlife management plan (article 407); and (7) develop an organic debris passage plan (ordering paragraph E).

Recommendations under FPA section 10(a)(1)

19. Section 10(a)(1) requires that any project for which the Commission issues a license should be best adapted to a comprehensive plan for improving a waterway or waterways for the benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, for the adequate protection, mitigation, and

¹³16 U.S.C. § 803(j)(1).

¹⁴16 U.S.C. § 661 *et seq.*

¹⁵16 U.S.C. § 803(j)(2).

¹⁶See letters from Jessica Mistak, MDNR, filed December 17, 2003, and Terence Martin, Interior, filed December 22, 2003.

enhancement of fish and wildlife, and for other beneficial public uses, including irrigation, flood control, water supply, recreation and other purposes.

20. Staff determined that MDNR's and Interior's recommendations, to: (1) establish a fish protection fund; (2) develop a project retirement plan; (3) include a fish and wildlife reopener license article; and (4) develop a recreation plan were outside the scope of section 10(j) because they are not specific measures to protect fish and wildlife.

21. This license includes these measures except two. This license does not include a requirement to establish a fish protection fund for compensatory mitigation, because the Commission cannot require funding of compensatory mitigation where it has not been shown by substantial evidence that entrainment mortality has had a significant adverse effect on the fishery population.¹⁷ The recommendation to develop a project retirement plan is not adopted because the Commission has stated that it will not generically impose retirement fund requirements on licensees.¹⁸ A fish and wildlife reopener license article is included in the standard L-form articles incorporated by reference in this license, and a recreation plan is required by article 408.

22. WDNR filed late comments and terms and conditions on December 23, 2003.¹⁹ However, this license includes conditions consistent with each of these recommendations: (1) release daily mean inflow and maintain the reservoir at 829.8 ± 1.0 foot NGVD (article 402); (2) develop a land management plan (article 407); and (3) develop a woody debris management plan (ordering paragraph E).

COMMENTS ON THE EA

Fish Protection Fund

23. Interior and MDNR recommend establishing a fund to mitigate for entrainment losses at the project. In comments on the EA, Interior and MDNR noted that Norway proposes a fish protection fund, whereby annual contributions would be commensurate with entrainment and mortality losses at the project and would be determined through consultation with the agencies. In the EA, staff noted no demonstrated impact on the fish

¹⁷See *City of New Martinsville v. FERC*, 102 F.3d 567 (D.C. Cir. 1996); *City of Jackson, Ohio*, 105 FERC ¶ 61,136 (2003); *Tower Kleber Limited Partnership*, 91 FERC ¶ 61,172 (2000); *City of New Martinsville v. FERC*, 81 FERC ¶ 61,093 (1997).

¹⁸FERC Statutes and Regulations ¶ 31,011 (1994).

¹⁹The ready for environmental analysis notice was issued on October 23, 2003, with comments due December 22, 2003.

population as a result of entrainment at the project, and therefore, did not recommend MDNR's and Interior's fish protection fund. Accordingly, this license does not include a requirement for a fish protection fund.²⁰

Invasive Plants

24. Interior and MDNR recommend developing an invasive plant control plan to map, monitor, and control purple loosestrife and Eurasian milfoil in project waters. In comments on the EA, Interior and MDNR reiterates that the plan should include measures to control /eliminate exotic plant species. In the EA, staff noted that a monitoring plan for these species would help document and track their distribution and abundance to guide decisions on the type of control measures needed. Accordingly, article 406 of this license requires an invasive plant monitoring plan including control measures when deemed appropriate by the Commission.

OTHER ISSUES

Historic Properties

25. On December 30, 1993, the State Historic Preservation Officers for Michigan and Wisconsin and the Commission executed a state-wide Programmatic Agreement (PA) for managing historic properties that might be affected by new and amended licenses issued for hydroelectric projects in the State of Wisconsin and adjacent portions of the State of Michigan. Article 409 requires Norway to implement the state-wide PA, including a Historic Properties Management Plan for the project. The PA satisfies the Commission's responsibilities under section 106 of the National Historic Preservation Act.²¹

Administrative Conditions

26. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for administration of the FPA.

27. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Article 202 requires the filing of these drawings.

28. Some projects directly benefit from headwater improvements that were constructed by other licenses, the United States, or permittees. Article 203 requires the

²⁰See *City of New Martinsville, WV. v. FERC*, 102 F.3d 567 (D.C. Cir. 1996), and *Allegheny Energy Supply Company, LLC.*, 109 ¶ 61,028 (2004).

²¹16 U.S.C. § 470s.

licensee to reimburse such entities for these benefits if they were not previously assessed and reimbursed.

Use and Occupancy of Project Lands and Waters

29. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Therefore, article 410 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for such minor activities as landscape planting. Such uses must be consistent with the purpose of protecting and enhancing the scenic, recreational, and environmental values of the project.

COMPREHENSIVE PLANS

30. Section 10(a)(2)(A) of the FPA²² requires the Commission to consider the extent to which a hydroelectric project is consistent with federal or state comprehensive plans for improving, developing, or conserving waterways affected by the project.²³ Under section 10(a)(2)(A), federal and state agencies filed a total of 80 qualified comprehensive plans of which we identified nine plans relevant to the application.²⁴ No conflicts were found.

APPLICANT'S PLANS AND CAPABILITIES

31. In accordance with sections 10(a)(2)(C) and 15(a) of the FPA,²⁵ staff has evaluated Reliant's record as a licensee with respect to the following: (A) conservation efforts; (B) compliance history and ability to comply with the license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable

²²16 U.S.C. § 803(a)(2)(A).

²³Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2004).

²⁴(1) Upper Chippewa River Basin area wide water quality management plan, 1980; (2) Wisconsin water quality assessment report to Congress, April 1992; (3) Wisconsin statewide comprehensive outdoor recreation plan for 1991-1996, October 1991; (4) Wisconsin peregrine falcon recovery plan, January 1987; (5) Wisconsin forestry best management practices for water quality, March 1995; (6) Wisconsin's biodiversity as a management issue, May 1995; (7) Upper Chippewa River Basin water quality management plan, February 1996; (8) Fisheries USA; the recreational fisheries policy of the U.S. Fish and Wildlife Service, U.S. Fish and Wildlife Service, undated; and (9) the nationwide rivers inventory, National Park Service, January 1982.

²⁵16 U.S.C. §§ 803(a)(2)(C) and 808(a).

electric service; (E) need for power; (F) transmission services; (G) cost effectiveness of plans; and (H) actions affecting the public. I accept the staff's findings in each of the following areas.

A. Conservation Efforts

32. Section 10(a)(2)(C) of the FPA requires the Commission to consider the electricity consumption efficiency improvement program of the applicant, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost effectively, taking into account the published policies, restrictions, and requirements of state regulatory authorities. Norway is a municipality that sells all the power generated by the project to its residential and commercial customers. Based on the information in the license application, staff concludes that Norway has made a good faith effort to reduce consumption and improve project performance to respond to consumer demand for electric energy. The staff concludes that Norway has made a satisfactory good faith effort to comply with section 10(a)(2)(C) of the FPA.

B. Compliance History and Ability to Comply with the New License

33. The staff reviewed Norway's license application and other submissions in an effort to judge its ability to comply with the articles, terms, and conditions of any license issued, and with other applicable provisions of this part of the FPA. Norway's overall record of making timely filings and compliance with its license is satisfactory. The staff concludes that Norway has or can acquire the resources and expertise necessary to carry out its plans and comply with all articles and terms and conditions of a new license.

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

34. Norway owns and operates the Sturgeon Falls Project. The staff reviewed Norway's management, operation, and maintenance of the project, including all applicable safety requirements such as a warning siren, warning signs, and a boat-retraining barrier. The project is subject to Part 12 of the Commission's regulations concerning project safety. Staff concludes that the project works are safe and that Norway's plans to manage, operate, and maintain the project safely is adequate for future operations.

D. Ability to Provide Efficient and Reliable Electric Service

35. The staff reviewed Norway's plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Norway has implemented a program consisting of routine and preventative maintenance procedures to ensure efficient and reliable electric service to its residents. Staff concludes that Norway has been operating the project in an efficient manner within the

constraints of the existing license, and that it would continue to provide efficient and reliable electric service in the future.

E. Need for Power

36. The Sturgeon Falls Project has historically generated about 24,500 MWh of electricity annually. This electricity from a non-polluting renewable source currently helps meet a growing demand. Without the Sturgeon Falls Project, Norway would have to either: (1) purchase power; (2) install additional fossil-fuel generators; or (3) purchase other hydroelectric facilities. Staff concludes that there is a need for power generated by the project.

F. Transmission Services

37. Norway's transmission system is the most effective means currently available to transmit the project's power because it is an existing system that is designed to accommodate the project's output for delivery into the regional grid. No changes are proposed by Norway or recommended by staff that would affect the capability of the project to connect to the regional grid to continue to serve delivery to the region.

G. Cost-Effectiveness of Plans

38. Norway proposes no new generating capacity at the Sturgeon Falls Project. The annual average flow of the Menominee River exceeds the installed hydraulic capacity of the project about 20 percent of the time. Based on this available flow, staff does not expect additional capacity to be cost effective at this site. Staff concludes that the project, as presently configured and as operated according to this order, is consistent with environmental considerations, and fully develops the economical hydropower potential of the site in a cost-effective manner.

H. Actions Affecting the Public

39. The project provides employment opportunities and attracts those interested in various forms of available recreation. Staff concludes that Norway would implement the various environmental and recreational enhancement measures approved in the license. These measures, discussed in the order and in the EA, as well as the power to be generated by the project, will benefit the public.

PROJECT ECONOMICS

40. 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 benefit of the project power.

41. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,²⁶ the Commission employs an analysis that uses current costs to compare the costs of the project and likely alternative power, with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

42. The annual cost of Norway's proposal would be \$645,910 or 26.41 mills/kWh. The annual power value would be \$1,057,110 or 43.22 mills/kWh for the estimated annual generation of 24,456 MWh. Thus, Norway's proposal would cost about \$411,200 or 16.81 mills/kWh less than the currently available alternative power. The source of the alternative power is based on the Energy Information Administration's Annual Energy Outlook 2004.²⁷

43. If licensed in accordance with the measures proposed by Norway, including the mandatory water quality certification conditions, and additional staff-recommended measures, the project would produce an average of 24,456 MWh of energy annually at an annual cost of about \$654,180 or 26.74 mills/kWh. The annual value of the project's power would be about \$1,057,110 or 43.22 mills/kWh. Thus, the project's power would cost about \$402,930 or 16.48 mills/kWh less than currently available alternative power.

44. 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.

45. Ancillary services are now mostly priced at rates that recover only the cost of providing the electric service at issue, which do not resemble the prices that would occur in competitive markets. As competitive markets for ancillary services begin to develop, the ability of hydro projects to provide ancillary services to the system will increase the

²⁶72 FERC ¶ 61,027 (1995).

²⁷See <http://www.eia.doe.gov/oiaf/aeo/index.html>.

benefits of the project. Sturgeon Falls Project is located in the region served by Midwest Independent System Operator (Midwest ISO). Midwest ISO serves the electrical transmission needs of much of the Midwest region, but does not yet operate centralized spot markets for energy or ancillary services (see www.midwestiso.org).

COMPREHENSIVE DEVELOPMENT

46. Sections 4(e) and 10(a)(1) of the FPA,²⁸ respectively, require the Commission to give equal consideration to the power development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment 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.

47. Based on my independent review and evaluation of the Sturgeon Falls Project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the EA, I have selected the Sturgeon Falls Project, including the water quality certification conditions with additional staff-recommended measures as the preferred alternative.

48. I selected this alternative because: (1) issuance of a new license would maintain a beneficial, dependable, and inexpensive source of electric energy; (2) the required environmental measures would protect and enhance fish and wildlife resources, water quality, recreational resources and historic properties; and (3) the 5.136 MW of electric energy generated from a renewable resource would continue to offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

LICENSE TERM

49. Section 15(e) of the FPA,²⁹ provides that any new license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years or more than 50 years. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive

²⁸16 U.S.C. §§ 797(e) and 803(a)(1).

²⁹16 U.S.C. § 808(e).

measures. This license authorizes a minor amount of new environmental mitigation measures. Consequently, a 30-year license term for the Sturgeon Falls Project is appropriate.

SUMMARY OF FINDINGS

50. The EA for the Sturgeon Falls Project contains background information, analysis of effects, support for related license articles, and the basis for finding that the project will not result in any major, long-term adverse environmental effects. The project would be safe if operated and maintained in accordance with the requirements of this license.

51. Based on a review and evaluation of the project, as proposed by the applicant, and the staff-recommended environmental measures, including the WQC conditions, I conclude that the continued operation and maintenance of the project in the manner required by the license would protect and enhance fish and wildlife resources, water quality, recreation, and historic resources. The electricity generated from this renewable water power resource would be beneficial because it would continue to offset the use of fossil-fueled generating stations, thereby conserving non-renewable resources and reducing atmospheric pollution. I conclude that the Sturgeon Falls Project, with the conditions set forth below, will be best adapted to the comprehensive development of the Menominee River for beneficial public uses.

The Director orders:

(A) This license is issued to the City of Norway, Michigan (licensee) for a period of 30 years, effective the first day of the month in which this license is issued, to operate and maintain the Sturgeon Falls Hydroelectric Project. 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:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G filed on February 19, 2003:

Exhibit G
Map 1

FERC No. 2720-
1001

Showing
Project Boundary

(2) Project works consisting of two dam sections spanning an island consisting of: (1) a 33-foot-high concrete non-overflow dam with a crest elevation of 835.2 feet National Geodetic Vertical Datum (NGVD); (2) a spillway section consisting of: (a) a 200-foot-long, 28-foot-high right section with steel slide gates; (b) a 40-foot-long, 28-

foot-high middle section equipped with one 24-foot-wide, 16.7-foot-high, and one 16-foot-wide, 16.7-foot-high Taintor gate; and (c) a 40-foot-long, 22-foot-high left section with a sluiceway; (3) a 400-acre reservoir with a normal pool elevation of 829.8 feet NGVD; (4) a 126.5-foot-long concrete headworks structure with seven 10-foot-wide, 11-foot-deep openings; (5) a 300-foot-long, 60-foot-wide power canal; (6) a powerhouse containing four generating units with a combined installed capacity of 5,136 kilowatts; (7) a 300-foot-long, 7.2-kilovolt transmission line; and (8) appurtenant facilities.

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

Exhibit A: Pages A-1 through A-5 filed on July 29, 2002.

Exhibit F: The following Exhibit F filed on July 29, 2002:

<u>Exhibit F</u>	<u>FERC No. 2720-</u>	<u>Showing</u>
Drawing 1 of 3	1002	General Layout
Drawing 2 of 3	1003	Cross Sections
Drawing 3 of 3	1004	Cross 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 described above are approved and made part of the license.

(D) This license is subject to the conditions of the water quality certification issued by the Michigan Department of Environmental Quality pursuant to section 401(a) of the Clean Water Act, as those conditions are set forth in Appendix A to this order.

(E) The following plan is approved and made part of this license: (1) Woody Debris Management Plan, Appendix 25 of the license application filed July 29, 2002.

(F) This license is subject to the articles set forth in Form L-3 (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. Administrative Annual Charges. The licensee shall pay the United States annual charges effective the first day of the month in which the license is issued, for the purposes of reimbursing the United States for the cost of administration of Part I of the Federal Power Act, as determined in accordance with provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 5,136 kilowatts.

Article 202. Exhibit Drawings. Within 45 days of the date of issuance of this license, the licensee shall file the approved exhibit drawings in aperture card and electronic file formats.

a) Three sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Drawing Number (e.g., P-2720-1001 through P-2720-1004) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall 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 shall be typed on the upper left corner of each aperture card.

Two of the sets of aperture cards shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Division of Dam Safety and Inspections Chicago Regional Office.

b) The licensee shall file two separate sets of exhibit drawings in electronic format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections Chicago Regional Office. The drawings must be identified as (CEII) material under 18 CFR § 388.113(c). Each drawing must be a separate electronic file, and the file name shall include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension [e.g., P-2720-1001, G-1, Project Boundary, MM-DD-YYYY.TIF]. Electronic drawings shall meet the following format specification:

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

Each Exhibit G drawing that includes the project boundary must contain a minimum of three known reference points, arranged in a triangular format. The latitude and longitude coordinates, or state plane coordinates, or each reference point must be

shown and identified on the drawing. Exhibit G drawings must be stamped by a Registered Land Surveyor.

c) The licensee shall file three separate sets of the project boundary data in a geo-referenced vector electric file format (such as ArcView shape files, GeoMedia files, MapInfo files, or any similar format) with the Secretary of the Commission, ATTN: OEP/DHAC. The file name shall include: FERC, Project Number, data description, date of this license, and file extension [e.g., P-2720, boundary vector data, MM-DD-YYYY.SHP]. The geo-referenced electronic boundary data file must be positionally accurate to ± 40 feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. A single electronic boundary data file is preferred and must contain all reference points shown on the individual project boundary drawings. The latitude and longitude coordinates, or state plane coordinates, of each reference point must be shown. The data must be accompanied by a separate text file describing the map project used (i.e., UTM, State Plane, Decimal Degrees, etc.), the map datum (i.e., North America 27, North America 83, etc.), and the units of measurement (i.e., feet, meters, miles, etc.). The text file name shall include: FERC Project Number, data description, date of this license, and file extension [e.g., P-2720, project boundary metadata, MM-DD-YYYY.TXT].

Article 203. Headwater Benefits. If the licensee's project was directly benefited 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 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 new license.

Article 401. Commission Approval and Reporting.

(a) Requirement to File Plans for Commission Approval

The Michigan Department of Environmental Quality (MDEQ) water quality certification (Appendix A to this order) requires the licensee to develop an erosion control plan without reference to prior Commission approval. The plan shall also be submitted to the Commission for approval. The plan is listed below.

MDEQ Condition No. (Appendix A)	Plan Name	Due Date
4.1	Erosion control plan	Within three years of license issuance

As to the plan, the licensee shall submit to the Commission documentation of its consultation with the MDEQ, the Michigan Department of Natural Resources, and the U.S. Fish and Wildlife Service, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments or 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 make changes to the plan. Upon Commission approval, the plan becomes a requirement of the license, and the licensee shall implement the plan or changes in project operations or facilities, including any changes required by the Commission.

(b) Requirement to File Reports

The licensee shall also file with the Commission reports of completion of the following water quality certification conditions.

MDEQ Condition No. (Appendix A)	Data Collection and Report Name	Due Date
1.3	Annual report showing impoundment level data and gate opening change data	Within 12 months of license issuance
1.5	Annual report describing the results of flow monitoring	Within 12 months of license issuance
1.6	Three-year test report on complying with operational requirements	Within 90 days after the end of the three-year test period
3.4	Annual report describing the results of monitoring water quality and sampling sediments and fish tissue	Within 90 days after completing the sampling

Article 402. Water Levels. The licensee shall maintain the water level in the project reservoir and release the continuous flow specified in conditions 1.1 and 1.2 of the water quality certification (Appendix A to this order). If the reservoir levels or continuous flow releases are modified from those required in water quality certification conditions 1.1 and 1.2, the licensee shall notify the Commission as soon as possible, but no later than 10 days after such incident.

Article 403. Operation Compliance Monitoring. Within six months of license issuance, the licensee shall file for Commission approval, a plan to monitor reservoir water surface elevations according to water quality certification (Appendix A to this order) condition 1.1 and the continuous flow release according to water quality

certification condition 1.2 required by article 402. The plan shall be prepared after consultation with the Michigan Department of Environmental Quality (MDEQ), the Michigan Department of Natural Resources (MDNR), and the U.S. Fish and Wildlife Service (FWS).

The compliance monitoring plan shall include provisions to monitor: (1) reservoir water surface elevations, and (2) all continuous flows according to the water quality certification (Appendix A to this order) conditions 1.1 and 1.2. The plan shall detail the mechanisms and structures that would be used, including any periodic maintenance and calibration necessary for any installed devices or gages, to ensure that the devices work properly, and shall specify how often reservoir and continuous flow releases shall be recorded and reported to the MDEQ, MDNR, and FWS.

The plan shall include, at a minimum:

1. provisions to file annual reports of all summary data, which shall also be provided to the MDEQ, and a procedure to submit all data to the MDEQ, MDNR and FWS, upon request;
2. procedures for emergency and planned drawdowns, including the timing, duration, and rate of drawdown and measures to minimize the effects on water quality, recreation, and fish and wildlife resources;
3. procedures for releasing flows during planned and emergency shut-downs including limits on planned outages in the spring; and
4. a schedule for implementing the monitoring plan after approval by the Commission.

The licensee shall include with the compliance monitoring plan documentation of agency consultations, including copies of agency comments and recommendations on the draft plan, 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. The compliance monitoring plan shall not be implemented until the licensee is notified that the plan is approved. Upon approval, the licensee shall implement the plan according to the approved schedule, including any changes required by the Commission.

Article 404. *Water Quality Monitoring and Fish Tissue Plan.* Within six months of license issuance, the licensee shall file for Commission approval, a plan to monitor water quality according to water quality certification conditions 2.1 and 2.2, analyze impoundment sediments according to water quality certification conditions 3.2, sample

fish tissue according to water quality certification condition 3.4, and if needed, an alternative plan to monitor water quality and sample sediment and fish tissue according to condition 3.5. The plan shall be prepared after consultation with the Michigan Department of Environmental Quality, the Michigan Department of Natural Resources, and the U.S. Fish and Wildlife Service.

The licensee shall include with the water quality monitoring and fish tissue plan documentation of agency consultations, including copies of agency comments and recommendations on the draft plan, 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. The water quality monitoring and fish tissue plan shall not be implemented until the licensee is notified that the plan is approved. Upon approval, the licensee shall implement the plan according to the approved schedule, including any changes required by the Commission.

Article 405. Reservation of Authority-Fishways. Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or to provide for the construction, operation, and maintenance of, such fishways as may be prescribed by the Secretary of the Interior under section 18 of the Federal Power Act.

Article 406. Invasive Plant Monitoring Plan. Within six months of license issuance, the licensee shall file for Commission approval, a plan to monitor purple loosestrife and Eurasian milfoil in project waters. The plan shall be prepared after consultation with the Michigan Department of Natural Resources (MDNR) and the U.S. Fish and Wildlife Service (FWS).

The plan shall include, at a minimum:

1. the criteria used to determine and list which invasive plant species are at the project;
2. the results of baseline field surveys (data should be logged, mapped, and photographed) to determine the presence/absence of invasive species;
3. follow-up methods of monitoring (e.g., field survey, aerial photographs) and the frequency (e.g., annually) and schedule (e.g. July 1-30) for monitoring invasive species;
4. a description of the specific measures the licensee will implement (e.g., informational signs posted along property or brochures issued) to increase public awareness of invasive species;

5. a description of management practices the licensee will implement (i.e., rinsing, trucking, and mowing equipment of seeds before and after use) to help prevent the spread of nuisance species;
6. a description of the criteria that will be used to determine when control measures are needed and a description of the specific control measures that the licensee will implement to control/eliminate each nuisance species found at the site (i.e., manual pulling, chemical application, biological controls);
7. recommended procedures for obtaining technical assistance from the MDNR, and FWS; and
8. a schedule for filing monitoring reports with the MDNR, FWS, and the Commission for review.

The licensee shall include with the invasive plant monitoring plan documentation of agency consultations, including copies of agency comments and recommendations on the draft plan, 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. The invasive plant monitoring plan shall not be implemented until the licensee is notified that the plan is approved. Upon approval, the licensee shall implement the plan according to the approved schedule, including any changes required by the Commission.

Article 407. Land and Wildlife Management Plan. Within six months of license issuance, the licensee shall file for Commission approval, a plan to manage land use and protect wildlife at the project. The plan shall be prepared after consultation with the Michigan Department of Natural Resources (MDNR), Wisconsin Department of Natural Resources (WDNR), and the U.S. Fish and Wildlife Service (FWS).

The plan shall include, at a minimum, the measures provided by the licensee-proposed Land Management Plan (Appendix 31 of the Final Application), as well as a provision for annual consultation with the resource agencies to allow for periodic management plan updates and to obtain agency input regarding proposed management decisions.

The plan shall also include, at a minimum, the following bald eagle management and protection measures:

1. provisions to protect the bald eagle and its habitat at the project, as well as other potential habitat for threatened and endangered species that may use project land in the future;
2. procedures for obtaining and documenting up-to-date bald eagle nesting activity on an annual basis, and for maintaining the information on project maps for use when planning land-disturbing activities such as vegetation control or recreation facility development; and
3. licensee consultation with the MDNR, WDNR, FWS, and the Commission prior to conducting land-disturbing activities that could affect bald eagle nesting activity.

The licensee shall include with the land and wildlife management plan documentation of agency consultations, including copies of agency comments and recommendations on the draft plan, 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. The land and wildlife management plan shall not be implemented until the licensee is notified that the plan is approved. Upon approval, the licensee shall implement the plan according to the approved schedule, including any changes required by the Commission.

Article 408. Recreation Plan. Within six months of license issuance, the licensee shall file, for Commission approval, a recreation plan for providing enhanced recreational opportunities. The plan shall be prepared after consultation with the Michigan Department of Natural Resources (MDNR) and the U.S. Fish and Wildlife Service (FWS). The plan shall include, at a minimum:

1. provisions to improve signage and install a vault toilet at the licensee's tailwater boat launch, and to develop a maintenance plan to keep the tailwater site in good condition and to control erosion;
2. provisions to improve signage and control vegetation growth around the signs and pathway at the licensee's canoe take-out and put-in sites
3. provisions to add accessible accommodations at the MDNR boat launch by designating at least one parking space for disabled persons near the boat ramp and by creating hardened paths from parking to the ramp and to the vault toilet (install additional signage); and
4. provisions to provide accessible picnic tables and trash cans.

The licensee shall include with the recreation plan documentation of agency consultations, including copies of agency comments and recommendations on the draft plan, 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. No ground-disturbing or land-clearing activities for expanding and improving recreation facilities shall begin until the licensee is notified by the Commission that the plan is approved. Upon approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 409. Programmatic Agreement. The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, and the State of Wisconsin, State Historic Preservation Officer, and the State of Michigan, State Historic Preservation Officer, For Managing Historic Properties That May Be Affected By New And Amended Licenses Issuing For The Continued Operation Of Existing Hydroelectric Projects In The State Of Wisconsin And Adjacent Portions Of The State Of Michigan," executed on December 30, 1993, including but not limited to filing, for Commission approval, the Historic Properties Management Plan (HPMP) for the project. In the event that the Programmatic Agreement (PA) is terminated, the licensee shall implement the provisions of its approved HPMP. The HPMP shall be filed with the Commission within one year of license issuance. The Commission reserves the authority to require changes to the HPMP at any time during the term of the license. If the PA is terminated prior to Commission approval of the HPMP, the licensee shall obtain approval before engaging in any ground-disturbing or land-clearing activities or taking any other action that may affect any historic properties within the project's area of potential effect.

Article 410. Use and Occupancy. (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 are 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 non-complying structures and facilities.

(b) The types of use and occupancy of project lands and waters 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 enhancements.

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 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.

(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 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 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 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 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.

(G) 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.

(H) This order is issued under authority delegated to the Director and is final unless a request for rehearing is filed within 30 days of the date of its issuance, as provided in section 313(a) of the FPA. 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 of this order shall constitute acceptance of this license.

J. Mark Robinson
Director
Office of Energy

APPENDIX A

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
CERTIFICATION UNDER SECTION 401 OF THE
CLEAN WATER ACT

On July 24, 2002, the Michigan Department of Environmental Quality (MDEQ) granted water quality certification under section 401 of the Federal Clean Water Act to the City of Norway, Michigan for the Sturgeon Falls Hydroelectric Project with the following conditions:

1.0 Sturgeon Falls Project - Operational Requirements:

1.1 The City shall maintain the level of the Sturgeon Falls Impoundment at an elevation of 829.8 feet National Geodetic Vertical Datum (NGVD) and any fluctuation shall normally not exceed +/- 1 foot, except during events beyond the control of the City including naturally high or low flows.

1.2 Upon FERC license issuance, the City shall operate the Sturgeon Falls Project in a reregulation mode consistent with the Wilderness Shores Settlement Agreement and in coordination with the Wisconsin Electric Power Company (WE). On a daily basis, the Sturgeon Falls Project shall release a continuous flow that is approximately equal to the upstream daily average flow. The flow downstream of the Sturgeon Falls Project shall not change by more than 20 percent in any two hour period or by more than 50 percent in any 24 hour period. These downstream flow change restrictions shall not apply when natural changes to Sturgeon Falls Project inflows occur that exceed the specified rates.

1.3 The City shall, within six months of the FERC license issuance, install a calibrated staff gage at a location clearly visible to the public that shows the Sturgeon Falls Impoundment level referenced to the NGVD. The Sturgeon Falls Impoundment level shall be recorded hourly and any gate opening changes shall be recorded in a log. An annual summary report of all recorded Sturgeon Falls Impoundment levels and changes in gate openings shall be submitted to the MDNR. All recorded Sturgeon Falls Impoundment level data and gate opening change data shall be submitted promptly to the MDNR upon request.

1.4 The City shall fund a USGS gage on the Sturgeon River near the mouth. This gage will be used along with data from USGS gage number 04065106 to determine daily average upstream flows to the Sturgeon Falls Project.

1.5 Compliance with Section 1.2 of this Certification shall be determined at United States Geological Survey (USGS) gage number 04065722 on the Menominee River near Vulcan when this gage is in operation. If USGS gage number 04065722 is not in

operation, then compliance shall be determined using operations data and data from gage number 04065106 and a gage on the Sturgeon River to be funded by the City as described in Section 1.4 of this Certification. An annual report describing the results from flow monitoring and the results from consultations with the WE shall be submitted to the MDNR.

1.6 A three-year test period shall be used to determine the City's ability to comply with the requirements listed in Sections 1.1 and 1.2 of this Certification. The test period shall begin after operations at the upstream Wisconsin Electric Hydroelectric Projects are operated in a manner consistent with their FERC license issued on January 12, 2001, and after the structural modifications necessary for reregulation at the Sturgeon Falls Project have been completed. During the three-year test period, the City shall consult with the WE regarding how best to predict daily average upstream flows. Within 90 days after the end of the three-year test period, a report shall be prepared by the City, in cooperation with the MDNR and the MDEQ, and submitted to the MDEQ which documents their ability to comply with requirements in Sections 1.1 and 1.2. If the report indicates that the City is not able to comply with all of the requirements in Sections 1.1 and 1.2, then the report shall also contain a revised operations plan to meet the requirements.

1.7 During adverse conditions when the requirements in Sections 1.1 or 1.2 cannot be met, the City shall, within one business day, consult with the MDNR and the Marquette District Supervisor of the MDEQ, SWQD, regarding emergency actions taken or planned. Consultation during the adverse conditions shall continue following a mutually agreed upon schedule. Upon cessation of the adverse conditions, the City shall resume the normal operations.

2.0 Sturgeon Falls Project - Water Quality Limitations:

2.1 The City shall not warm the Menominee River downstream from the Sturgeon Falls Project, by operation of the project, to temperatures in degrees Fahrenheit higher than the following monthly average temperatures:

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
38	38	41	56	70	80	83	81	74	64	49	39

This Section (2.1) shall not apply when the natural temperatures of the Menominee River measured upstream of the Sturgeon Falls Impoundment exceed the above monthly average temperature values.

2.2 The City shall not cause the dissolved oxygen (DO) concentration measured in the Menominee River downstream of the Sturgeon Falls Project, by operation of the Project, to be less than 5.0 milligrams per liter at any time.

3.0 Sturgeon Falls Project - Water Quality Monitoring and Reporting:

3.1 The City shall monitor the temperature and DO of the Menominee River from May 1 through September 30, at representative locations upstream and downstream of the Sturgeon Falls Project, beginning five years after license issuance and every five years thereafter.

3.2 Ten years after the issuance of the FERC license, and every ten years thereafter, the City shall analyze the sediments in the Sturgeon Falls Impoundment for the following parameters:

Oil and Grease	Total Arsenic
Total Cadmium	Total Chromium
Total Copper	Total Lead
Total Mercury	Total Nickel
Total Selenium	Total Phosphorus
Total Zinc	Total Silver
Total PCB	

3.3 Beginning one year after the issuance of the FERC license and every ten years thereafter, the City shall monitor the edible portion of fish from the Sturgeon Falls Impoundment for total mercury and polychlorinated biphenyls. The sample shall consist of ten legal size resident predator fish of one species and ten bottom feeder fish of one species that are representative of the sizes normally consumed by anglers. If ten legal size resident predator fish of one species cannot be collected after a reasonable effort, then smaller fish may be substituted. Data less than three years old from nearby impoundments on the Menominee River may be substituted on a case-by-case basis.

3.4 All sampling locations, sampling methods, and reporting formats shall be determined in consultation with the MDEQ. All analytical methods used shall be those approved by the United States Environmental Protection Agency pursuant to Title 40 of the Code of Federal Regulations, Part 136, or methods approved by the MDEQ. An annual report of the data generated to comply with Sections 3.1-3.3, shall be submitted to the MDEQ and the MDNR within three months of completing the sampling. The report shall include a summary of quality assurance data.

3.5 Alternatives to the monitoring required in Section 3.0 may be implemented upon written approval from the MDEQ.

4.0 Sturgeon Falls Project Bank Erosion Control:

4.1 The City shall, within three years of the issuance of the FERC license, develop and implement a plan to remediate stream and reservoir bank erosion sites that are caused by the

Sturgeon Falls Project. Prior to implementation, the plan shall be approved by the MDEQ, in consultation with the MDNR. This plan shall include a determination of the area of influence by the Sturgeon Falls Project, an erosion site inventory, an assessment of reasonable erosion control alternatives available for each site, and implementation dates for the erosion control option(s) selected for each site. The plan shall include a mechanism for the City to identify and control future erosion problems caused by the Sturgeon Falls Project.

5.0 Sturgeon Falls Project - Natural Organic Debris Maintenance:

5.1 The City shall pass natural vegetative debris (logs, stumps, sticks, limbs, leaves, and aquatic vegetation) collected on the trash racks and other structures over the Sturgeon Falls Dam, according to the plan in Appendix 25 of the FERC application.

6.0 Sturgeon Falls Project - Schedule Modification:

6.1 The MDEQ may extend or modify the specified implementation schedules within this Certification upon written request from the City, in the event the City, despite their good faith effort, is unable to meet the schedules specified within this Certification because of events beyond their control.

7.0 Sturgeon Falls Project - Temporary Modification of Operational Requirements:

7.1 Operational requirements of this Certification may be temporarily suspended for completion of necessary inspections, maintenance activities, dam safety activities, or in response to emergency requests from government agencies provided that prior notice is given to the MDNR.

8.0 Sturgeon Falls Project - Natural Resources Damages and Penalties:

8.1 The state reserves the right to seek civil or criminal penalties and liabilities under applicable law for natural resource damages that may occur.

9.0 Sturgeon Falls Project - Permits and Approvals:

9.1 Nothing herein shall relieve the City from the requirement to obtain any other necessary permits, licenses, or approvals from other federal or state departments or agencies. For all proposed drawdowns (and refills), for dam maintenance purposes, the City shall obtain any necessary state of Michigan permits and consult with the MDNR concerning the need for any remedial actions, mitigation, or restitution.

10.0 Sturgeon Falls Project - Right of Entry:

10.1 The City shall allow the MDEQ, or any agent appointed by the MDEQ, upon the presentation of credentials, to enter upon the City premises at reasonable times, to have access to and copy any records required to be kept under the conditions of this Certification, and to inspect the facilities or to conduct any environmental sampling.

11.0 Sturgeon Falls Project - Changes:

11.1 The City shall notify the MDEQ and the MDNR within ten days of any change that has or may occur in the structures or operation of the Sturgeon Falls Project, which may affect compliance with the MWQS.

12.0 Sturgeon Falls Project - Revocation:

12.1 If the MDEQ determines that the Sturgeon Falls Project can no longer comply with Section 401 (a) of the federal Clean Water Act and the MWQS, then this Certification may be revoked or modified after appropriate public notice.