

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION  
104 FERC ¶ 62,071

Consolidated Water Power Company

Project No. 2192-008  
Wisconsin

ORDER ISSUING NEW LICENSE  
July 30, 2003

INTRODUCTION

1. On June 26, 1998, Consolidated Water Power Company (Consolidated) filed a license application, under Sections 15 and 4(e) of the Federal Power Act (FPA),<sup>1</sup> to continue to operate and maintain the 6,232 kilowatt (kW) Biron Hydroelectric Project No. 2192. The Biron Project is located on the upper Wisconsin River at river mile (RM) 219, in the townships of Biron, Wisconsin Rapids, Stevens Point, Plover, and Whiting, in Wood and Portage Counties, Wisconsin.<sup>2</sup> Consolidated proposes no new capacity at the project. The project occupies 2.64 acres of federally-owned lands.

BACKGROUND

2. The original license was issued on January 31, 1957, effective for the period January 1, 1938, to July 1, 1970. A new license for the project was issued on August 14, 1980,<sup>3</sup> for period ending June 30, 2000. Since then, Consolidated has operated the project under an annual license pending the disposition of the application for a new license.

3. A scoping process was conducted for the project which included issuing a scoping document, and a site visit and scoping meetings in the project vicinity in April 1999. Notice of the application, which indicated that the project was ready for environmental analysis and soliciting comments, recommendations, and terms and conditions, was issued on November 8, 1999. Comments were filed in response to the scoping process and the public notice for the project. A motion to intervene was filed by the Wisconsin Department of Natural Resources.

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<sup>1</sup> 16 U.S.C. §§ 797(e) and 808.

<sup>2</sup> The Wisconsin River is a navigable waterway of the United States. See Consolidated Water Power Company, 17 FPC 108 (1957).

<sup>3</sup> 12 FERC ¶ 62,100 (1980)

Project No. 2192-008

- 2 -

4. On December 28, 2001, the Commission staff issued, for public comment, a draft environmental assessment (DEA). The DEA recommended that the project be licensed with certain environmental measures, and found that licensing the project would not constitute a major federal action significantly affecting the quality of the human environment. Comments were filed in response to the DEA, and those comments were fully considered and addressed in the final EA issued on March 20, 2003.

5. The motions to intervene and comments received from interested agencies and individuals throughout the proceeding have been fully considered and addressed in this order in determining whether, and under what conditions, to issue this license.

#### PROJECT DESCRIPTION

6. The Biron Project consists of a 34-foot-high dam with three spillway sections controlled by Taintor gates; a 2,078-acre reservoir; a powerhouse with a total installed capacity of 6,232 kW; and appurtenant facilities. A more detailed project description is contained in ordering paragraph (B)(2).

#### WATER QUALITY CERTIFICATION

7. Under Section 401(a)(1) of the Clean Water Act (CWA),<sup>4</sup> the Commission may not issue a license for a hydroelectric project unless the state water quality certifying agency either has issued a 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 one year. Section 401(d) of the CWA provides that the State certification shall become a condition on any federal license or permit that is issued.<sup>5</sup>

8. The Wisconsin Department of Natural Resources (WDNR) waived the certification by not responding, within 1 year, to Consolidated's request for a WQC dated June 1, 1998.<sup>6</sup>

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<sup>4</sup>33 U.S.C. § 1341(a)(1).

<sup>5</sup>33 U.S.C. § 1341(d).

<sup>6</sup>WDNR staff acknowledged waiver of the WQC in the teleconference with Commission staff and FWS staff on May 7, 2002.

Project No. 2192-008

- 3 -

## FISHWAYS PRESCRIPTIONS

9. Section 18 of the FPA provides that the Commission shall require a licensee, at its own expense, to construct, operate, and maintain such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate.<sup>7</sup> By letter dated January 6, 2000, the Secretary of the Interior requested reservation of its authority to prescribe, through the U.S. Fish and Wildlife Service (FWS), the construction, operation, and maintenance of appropriate fishways at the Biron Project. Consistent with the Commission's policy, Article 404 reserves the Commission's authority to require such fishways that may be prescribed by Interior, through the FWS, for the Biron Project.

## THREATENED AND ENDANGERED SPECIES ACT

10. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA)<sup>8</sup> 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 their designated critical habitat.

11. The federally listed (threatened) bald eagle (*Haliaeetus leucocephalus*), and (endangered) Karner blue butterfly (*Lycaeides melissa samuelis*) are known to occur in the project areas. The FWS concluded that if the licensee implements protection measures proposed in the license application the continued operation of the Biron Project would not affect federally-listed threatened and endangered species (letter from W. Taylor, Director, FWS, Washington, D.C. to D. Boergers, Secretary, FERC, January 6, 2000). Consistent with the proposed action, I have included these measures in Articles 406 and 407 of the license; therefore, no further action is required under the ESA.

## RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

12. Section 10(j) of the FPA<sup>9</sup> requires the Commission, when issuing a license, to include license conditions based on the recommendations of the federal and state fish and

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<sup>7</sup>16 U.S.C. § 811.

<sup>8</sup>16 U.S.C. § 1536(a).

<sup>9</sup>16 U.S.C. § 803(j).

Project No. 2192-008

- 4 -

wildlife agencies, submitted pursuant to the Fish and Wildlife Coordination Act,<sup>10</sup> 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 recommendation may be inconsistent with the purpose and requirements of Part I of the FPA, or other applicable law, Section 10(j)(2) of the FPA<sup>11</sup> 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.

13. FWS filed numerous recommendations pursuant to Section (10)(j). This license contains conditions consistent with recommendations for: (1) a run-of-river operation mode (article 401); (2) limitations on reservoir surface elevation fluctuations (Article 402); (3) develop a plan to monitor exotic species (article 405); and (4) implement two threatened and endangered species management plans (articles 406 and 407).

14. Commission staff made an initial determination that some of the recommendations of FWS were inconsistent with the substantial evidence standard of Section 313(b) and the comprehensive planning and public interest standards of sections 4(e) and 10(a) of the FPA<sup>12</sup>. By letter dated January 9, 2002, Commission staff advised FWS of its preliminary determinations and attempted to resolve the apparent inconsistencies. FWS response by letter filed February 12, 2002, resolved all the apparent inconsistencies regarding specific measures for the protection of fish and wildlife resources affected by the operation of the project.

15. Staff identified three recommendations made under Section 10(j) as not being within the scope of Section 10(j). These relate to the management of lands within the project boundary, the development of measures to stabilize shoreline erosion, and the establishment of a Fish Protection Fund. These recommendations are not specific

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<sup>10</sup>16 U.S.C. §§ 661 *et seq.*

<sup>11</sup>16 U.S.C. § 803(j)(2).

<sup>12</sup>16 U.S.C. § 803(j)(2).

Project No. 2192-008

- 5 -

measures to protect fish and wildlife, and therefore staff considered them under the comprehensive planning requirement of Section 10(a) of the FPA.

16. Staff notes that Consolidated has developed a land management plan that FWS endorses and that Consolidated is proposing to implement. Staff concluded that consolidated should develop and, upon Commission approval, implement a final land management plan. However, since Consolidated has not proposed the removal of any lands from its project boundary, the FWS's recommendation that public access be maintained on lands withdrawn from the project boundary is not an issue at this time.

17. Staff recommends that Consolidated implement erosion control where erosion threatens known archeological sites. However, staff concludes that a project-wide plan is not warranted, because shoreline erosion within the Wisconsin River is dynamic, and much of this erosion is beyond the control of Consolidated.

18. As for the Fish Projection Fund, staff's analysis of the potential effects of fish entrainment at the Biron Project indicates that there is no evidence that entrainment mortality is adversely affecting fisheries in the project impoundment and installation of protective measures to reduce fish losses due to entrainment are costly, and would not provide fishery benefits commensurate with those costs.<sup>13</sup>

## COMPREHENSIVE PLANS

19. Section 10(a)(2)(A) of the FPA<sup>14</sup> requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.<sup>15</sup> Staff identified and reviewed 10 plans relevant to the project.<sup>16</sup> No inconsistencies were

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<sup>13</sup>See FEA, Section V.C.3.b.

<sup>14</sup>16 U.S.C. § 803(a)(2)(A).

<sup>15</sup>Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2003).

<sup>16</sup>**Wisconsin:** (1) Wisconsin Department of Natural Resources. 1985. *Wisconsin statewide comprehensive outdoor recreation plan, 1986-1991*. Madison, Wisconsin. September 1985. Nine volumes; (2) Wisconsin Department of Natural Resources. 1991. *Wisconsin statewide comprehensive outdoor recreation plan for 1991-1996*. Madison, (continued...)

Project No. 2192-008

- 6 -

found. Staff also reviewed 2 state plans which are relevant to the project, but are not listed as a Commission-approved comprehensive plan.<sup>17</sup> No inconsistencies with these plans were found.

#### APPLICANT'S PLANS AND CAPABILITIES

20. The project operates, and would continue to operate, in a run-of-river mode, with limited impoundment water level fluctuations. In accordance with Sections 10(a)(2)(C) and 15(a) of the FPA,<sup>18</sup> staff has evaluated Consolidated's record as a licensee with respect to the following: (A) conservation efforts; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power;

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<sup>16</sup>(...continued)

Wisconsin. October 1991. 312 pp. and survey form; (3) Wisconsin Department of Natural Resources. 1994. *Wisconsin Water Quality Assessment Report to Congress*. Madison, Wisconsin. August 1994; (4) Wisconsin Department of Natural Resources. 1995. *Wisconsin's biodiversity as a management issue*. Madison, Wisconsin. May 1995; (5) Wisconsin Department of Natural Resources. 1995. *Wisconsin's Forestry Best Management Practices for Water Quality*. Madison, Wisconsin. March 1995; (6) Wisconsin Department of Natural Resources. 1992. *Upper Wisconsin River Southern Sub-basin water quality management plan*. Madison, Wisconsin. June 1992. (7) Wisconsin Department of Natural Resources. 1991. *Upper Wisconsin River Northern Sub-basin water quality management plan*. Madison, Wisconsin. May 1991.

**Federal:** (1) FWS and Canadian Wildlife Service. 1986. *North American Waterfowl Management Plan*. May 1986; (2) FWS. Undated. *Fisheries USA: the recreational fisheries policy of the U.S. Fish and Wildlife Service*. Washington, D.C. 11 pp; (3) National Park Service. 1982. *The nationwide rivers inventory*. Department of the Interior, Washington, D.C. January 1982. 432. pp.

<sup>17</sup>(1) Wisconsin Department of Natural Resources. 1986. *Wisconsin Osprey Recovery Plan, Report 23*. C.M. Gieck; (2) Wisconsin Department of Natural Resources. 1999. *Wisconsin Statewide Karner Blue Butterfly Habitat Conservation Plan. Volume 1: Statewide Habitat Conservation Plan*. March 1999.

<sup>18</sup>16 U.S.C. § 803(a)(2)(C) and § 808(a).

Project No. 2192-008

- 7 -

(F) transmission services; (G) cost effectiveness of plans; and (H) actions affecting the public. I accept staff's finding in each of the following areas.

A. Conservation Efforts (Section 10(a)(2)(C))

21. Section 10(a)(2)(C) of the FPA requires the Commission to consider the electricity consumption improvement program of the applicant, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the published policies, restrictions, and requirements of state regulatory authorities. Consolidated sells all energy generated at the project to its parent company for use at their mill facilities.

22. Staff concludes that Consolidated complied with and, is likely to continue to comply with, section 10(a)(2)(C) of the FPA.

B. Compliance History and Ability to Comply with the New License (Sections 15(a)(2)(A) and 15(a)(3)(A))

23. Staff reviewed the relicense application and Consolidated's compliance with the terms and conditions of the existing license. Staff finds that Consolidated's overall record of making timely filings and compliance with its license is satisfactory.

C. Plans and Abilities of the Applicant to Manage, Operate, and Maintain the Project Safely (Section 15(a)(2)(B))

24. Consolidated owns and operates the Biron Project. The project dam and appurtenant facilities are subject to Part 12 of the Commission's regulations concerning project safety. Staff reviewed Consolidated's management, operation, and maintenance of the project pursuant to the requirements of Part 12 and the associated Engineering Guidelines, including all applicable safety requirements such as warning signs and boat barriers, Emergency Action Plan, and Independent Consultant's Safety Inspection Reports. Consolidated's record of managing, operating, and maintaining these facilities presents no reason not to issue a new license.

25. Staff concludes that the dam and other project works are safe, and that the applicant's record of managing, operating, and maintaining these facilities is adequate.

Project No. 2192-008

- 8 -

D. Plans and Abilities of the Applicant to Operate and Maintain the Project in a Manner Most Likely to Provide Efficient and Reliable Electric Service (Section 15(a)(2)(C))

26. Staff reviewed the project's past operational record, as well as Consolidated's plans and abilities to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. In the 5 years prior to filing their application, there were 60 unscheduled outages at the project, which resulted in a loss of 17.0 gigawatt-hours of generation. Based on its review, staff concludes that Consolidated has been operating the project in an efficient manner, within the constraints of the existing license, and is likely to continue to do so under a new license.

E. Need of the Applicant Over the Short and Long Term for the Electricity Generated by the Project to Serve Its Customers (Section 15(a)(2)(D))

27. Power generated by the Biron Project is used by Consolidated's parent company at their paper mill facilities. While the Biron Project represents only a portion of the need at the mill facilities, the project provides a source of low-cost, dependable generation that displaces non-renewable fossil-fuel generation. The project's power also contributes to a diversified generation mix and helps meet power needs in the Mid-continent Area Power Pool region.

28. We conclude that power from the Biron Project would help meet a need for power and ancillary services in both the short and long term. The project provides low-cost power that displaces non-renewable, fossil-fired generation and contributes to a diversified generation mix. Displacing the operation of fossil-fueled facilities avoids some power plant emissions and creates an environmental benefit.

F. The Impact of Receiving or Not Receiving the Project License on the Operation, Planning and Stability of Applicant's Transmission System (Section 15(a)(2)(E))

29. Consolidated does not have a transmission system. Staff concludes that if Consolidated does not receive a new license for the project, replacement energy would have to be purchased from Wisconsin Public Service Corporation.

G. Whether the Plans of the Applicant Will be Achieved, to the Greatest Extent Possible, in a Cost Effective Manner (Section 15(a)(2)(F))



Project No. 2192-008

- 9 -

30. Consolidated proposes no new construction or changes in project operation. The project, under a new license, would continue to operate in a run-of-river mode, and the existing project, which has had its debt significantly reduced over the previous license, would continue to be a very valuable source of economical electric power. The project, with the proposed and additional staff-recommended measures included as part of this license, would produce about 38.6 GWh of power annually, at a cost of about 21.26 mills per kilowatt-hour. Staff concludes that the plans of the applicant would be achieved, to the extent possible, in a cost-effective manner.

#### H. Actions Affecting the Public (Section 15(a)(3)(B))

31. The Biron Project generates electricity used to serve the needs of the public. Consolidated provides project lands and access sites for public recreation usage, and also provides public safety measures at the dam. Environmental measures included in the license will generally improve environmental quality, and will have a beneficial effect on public use of project facilities for recreational purposes.

#### ANCILLARY SERVICE BENEFITS

32. 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.

33. Ancillary benefits are now mostly priced at rates that recover only the cost of providing the electric service at issue, which doesn't resemble the prices that would occur in competitive markets. In the competitive northeast market, the ability of hydropower projects to provide ancillary services to the system can increase the benefits derived from the project.

Project No. 2192-008

- 10 -

## COMPREHENSIVE DEVELOPMENT

34. Sections 4(e) and 10(a) of the FPA,<sup>19</sup> require the Commission to give equal consideration to the purposes of power development 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 judgement would 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.

35. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,<sup>20</sup> staff employs an analysis that uses current costs to compare the costs of the project and likely alternative power, with no forecasts for 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. In making its decision, the Commission considers the project power benefits both with Consolidated's proposed measures and Consolidated's proposed measures with additional staff-recommended measures.

36. As proposed by Consolidated, staff estimates that the annual cost of the project would be about \$819,180 (21.22 mills/kWh). The annual power benefit, for the estimated annual generation of 38.6 GWh, would be \$1,180,000 (30.57 mills/kWh). The resulting annual net benefit would be \$360,820 (9.35 mills/kWh). The proposed action with additional staff-recommended measures would increase the annual cost about \$1,450 to \$820,630 (21.26 mills/kWh) for the same generation, so the annual net benefit would decrease by the amount of the cost increase to \$359,370 (9.31 mills/kWh).

37. Based on this independent review and evaluation of the Biron Project, as proposed by Consolidated, as proposed with additional staff-recommended measures, and no-action, as documented in the EA, I have selected the Biron Project, as proposed with

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<sup>19</sup>16 U.S.C. §§ 797(e) and 803(a)(1).

<sup>20</sup>72 FERC ¶ 61,027 (1995).

Project No. 2192-008

- 11 -

additional staff-recommended measures, as the preferred alternative. I selected this alternative because: (1) issuance of the license would allow Consolidated to continue to operate the project as a beneficial, dependable, and inexpensive source of electric energy; (2) continued operation of the 6,232 kW project would avoid the need for an equivalent amount of fossil-fueled fired electric generation and capacity, continuing to help conserve these non-renewable energy resources and reduce atmospheric pollution; and (3) the recommended environmental measures would improve water quality and recreation, as well as protect and enhance fisheries, terrestrial and cultural resources at the project.

38. The preferred alternative includes the following measures:

- (1) operate the project in a ROR mode such that the project reservoir elevation is maintained within an 0.8-foot operating range, with a target elevation of 1034.9 feet National Geodetic Vertical Datum (NGVD), except for periodic maintenance related drawdowns (article 401 and 402);
- (2) develop and implement an operations compliance monitoring plan (article 403);
- (3) reserve the Commission's authority to require fishways that may be prescribed by Interior (article 404);
- (4) develop an exotic species control plan, in consultation with the FWS and the DNR, to monitor invasive species, and implement measures as appropriate, on project lands within the project boundary (article 405);
- (5) develop and implement a bald eagle management plan (ordering paragraph D (1) and article 406);
- (6) participate in the implementation of the state-wide HCP for management of the Karner blue butterfly, including the management of project lands for this species (ordering paragraph D (2) and article 407);
- (7) develop and implement a final recreation plan (article 408);
- (8) develop and implement a monitoring report on recreation use (article 409);

Project No. 2192-008

- 12 -

- (9) implement the final land management plan (ordering paragraph D (3) and article 410); and
- (10) implement the existing Programmatic Agreement, including development of an HRMP (articles 411).

#### OTHER ISSUES

39. In the late stage of processing, Consolidated informed the Commission that generating unit #8 had been permanently taken out of service because it had broken down. The unit's nameplate capacity is 478 kW. Loss of this unit reduces the Biron Project's capacity to 6,232 kW, and the project's energy by approximately 7%, which is reflected throughout this license.

40. In the order amending license, issued May 27, 2003<sup>21</sup>, the Director approved a land exchange and corresponding project boundary change. Land valuable for wetland habitat was acquired in exchange for land with little resource value. This order will require revised Exhibit G drawings be filed reflecting this new boundary.

41. Staff received letters<sup>22</sup> informing us that Consolidated is taking action to vacate leases on some of its property within the project boundary that has historically been used for private recreational purposes and residences. The June 30, 2003, letter requested that staff attend a meeting to discuss the matter.<sup>23</sup> Consolidated has decided to terminate the leases and to eventually restore these privately-used areas to their natural condition and enhance access and recreational opportunities for the general public. The EA found that existing day use capacity is sufficient to accommodate expected growth in water-based recreation needs through 2010. However, review also indicates a need for improved conditions of some of the facilities. Article 408 requires that a recreation plan

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<sup>21</sup>103 FERC ¶ 62,108.

<sup>22</sup>Letter from Senator Feingold, filed May 30, 2003; letter from Lisa Rasmussen, filed June 30, 2003; letter from Betsy Griese filed July 15, 2003; letter from Al Musch filed July 17, 2003; letter from William and Shirley Carpenter filed July 17, 2003; letter from Lori Lampert-Wilke filed July 21, 2003.

<sup>23</sup>On July 16, 2003, Commission staff met with local citizens and suggested that on-going discussions between the lessees and Consolidated continue in an attempt to resolve the matter.

Project No. 2192-008

- 13 -

incorporating specific recreational enhancements be filed for Commission approval. Article 409 requires monitoring recreation use beyond 2010 to determine whether existing recreation facilities are meeting recreation needs. The license article does not require additional public access to the reservoir nor does it require the licensee to terminate the private leases to accommodate public recreational access at the project.

#### LICENSE TERM

42. Pursuant to Section 15(e) of the FPA,<sup>24</sup> new license terms shall not be less than 30 years nor more than 50 years from the date on which the license is issued. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental protection, mitigation, and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive measures.<sup>25</sup>

43. This license will have a term of 30 years because there is no new development nor are there extensive mitigative or enhancement measures.

#### SUMMARY OF FINDINGS

44. The EA for the Biron Project contains background information, analysis of effects, support for related license articles, and the basis for a finding that the project will not result in any major, long-term adverse environmental effects. The design of this project is consistent with the engineering standards governing dam safety. The project would be safe if operated and maintained in accordance with the requirements of this license.

45. Based on the review and evaluation of the project, as proposed by Consolidated and with additional staff-recommended measures, I conclude that the continued operation and maintenance of the project in the manner required by this license, would protect and enhance fish and wildlife resources, water quality, recreational, and cultural resources in the Wisconsin River Basin. The electricity generated from this renewable water power resource would be beneficial because it would continue to offset the use of fossil-fuel generating stations, thereby conserving non-renewable resources. I conclude that the Biron Project, with the conditions and other special license articles set forth below will

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<sup>24</sup>16 U.S.C. § 808(e).

<sup>25</sup>See Consumers Power Company, 68 FERC ¶ 61,077 at pp. 61,383-84 (1994).

Project No. 2192-008

- 14 -

be best adapted to the comprehensive development of the Wisconsin River for beneficial uses.

The Director orders:

(A) This license is issued to Consolidated Water Power Company (licensee), effective the first day of the month in which this order is issued for a period of 30 years to continue to operate and maintain the Biron 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 June 26, 1998:

<u>Exhibit G Drawing</u>	<u>FERC No. 2192-</u>	<u>Showing</u>
Sheet-1	1007	Project Boundary
Sheet-2	1008	Project Boundary
Sheet-3	1009	Project Boundary
Sheet-4	1010	Project Boundary
Sheet-5	1011	Project Boundary

(2) The project works consisting of: (1) a 34-foot-high dam consisting of 3,572.3 feet of concrete gravity wall in five sections, three spillway sections containing 22 Taintor gates, and 15,900 feet of earthen dikes; (2) a 2,078-acre reservoir at water surface elevation of 1,034.9 feet NGVD, and a storage capacity of 19,500 acre-feet; (3) a powerhouse, integral with the dam, containing two 1,450-kW turbine generators, and an adjacent industrial (grinder) building containing seven turbine generators, with a total project installed capacity of 6,232 kW; (5) generator leads; and (6) appurtenant electrical facilities necessary to interconnect with the transmission system.

Project No. 2192-008

- 15 -

The project works generally described above are more specifically described in Exhibit A of the application (pages A-1 to A-11) and shown by Exhibit F drawings, filed on June 26, 1998:

<u>Exhibit F Drawing</u>	<u>FERC No. 2110-</u>	<u>Description</u>
Sheet-1	1001	General Design Drawings
Sheet-2	1002	General Design Drawings
Sheet-3	1003	General Design Drawings
Sheet-4	1004	General Design Drawings
Sheet-5	1005	General Design Drawings
Sheet-6	1006	General Design Drawings

(3) All of the structures, fixtures, equipment, or facilities used or useful in the operation and maintenance of 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, as approved by the Commission, and all riparian or other rights that are necessary or appropriate in the operation and maintenance of the project.

(C) Exhibits A, F, and G, listed above, are approved and made part of this license.

(D) The following plans are approved and made a part of this license:

(1) Bald Eagle (*Haliaeetus leucocephalus*) Management and Protection Plan , filed June 26, 1998;

(2) Karner Blue Butterfly (*Lycaeides melissa samuelis*) Management and Protection Plan , filed June 26, 1998; and,

(3) Biron Hydroelectric Project Land Management Plan, filed June 26, 1998).

(E) This license is subject to the articles set forth in Form L-5 (revised October 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters and Lands of the United States," and the following additional articles.

Article 201. The licensee shall pay the United States the following annual charges, effective the issuance date of this license:

Project No. 2192-008

- 16 -

(a) For the purposes 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 6,232 kilowatts.

(b) Recompensing the United States for the use, occupancy and enjoyment of 2.64 acres of its lands, other than for transmission line right-of-way.

Article 202. Within 45 days of the date of issuance of the license, the licensee shall file three sets of aperture cards of the approved exhibit drawings. The sets must be reproduced on silver or gelatin 35mm microfilm.

Prior to microfilming, the FERC Drawing Number (2192-1001 through 2192-1011) 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 shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Chicago Regional Office.

Article 203. The licensee shall clear and keep clear to an adequate width all lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which result from maintenance, operation, or alteration of the project works. All clearing of lands and disposal of unnecessary material shall be done with due diligence to the satisfaction of the authorized representative of the Commission and in accordance with appropriate federal, state, and local statutes and regulations.

Article 204. 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



Project No. 2192-008

- 17 -

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 included 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 205. If the licensee's project is directly benefitted by the construction work of another licensee, a permittee, or of the United States of a storage reservoir or other headwater improvement, the licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed. The benefits will be assessed in accordance with Subpart B of the Commission's regulations.

Article 301. Within 3 months of the issuance date of the license, the licensee shall file, for Commission approval, revised Exhibit G drawings (project boundary maps) showing the inclusion of 9.18 acres of land and the exclusion of 19.28 acres of land from the Biron Hydroelectric Project boundary.

Article 401. Upon approval of the plan required in Article 403, the licensee shall operate the project in a run-of-river mode for the protection of aquatic resources in the Wisconsin River. The licensee shall at all times act to minimize the fluctuation of the reservoir surface elevation by maintaining a discharge from the project so that, at any point in time, flows, as measured immediately downstream of the project tailrace, approximate the sum of inflows to the project reservoir.

Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods of time upon mutual agreement among the licensee, Wisconsin Department of Natural Resources (Wisconsin DNR), and the U.S. Fish and Wildlife Service (FWS). If the flow is so modified, the

Project No. 2192-008

- 18 -

licensee shall notify the Commission, the Wisconsin DNR, and the FWS as soon as possible, but no later than 10 days after each such incident.

Article 402. Upon approval of the plan required in Article 403, the licensee shall maintain a reservoir surface elevation of  $1,034.90 \pm 0.8$  ft. NGVD for the protection of fish and wildlife resources.

This target reservoir surface elevation may be temporarily modified if required by operating emergencies beyond the control of the licensee or for short periods upon mutual agreement among the licensee, the Wisconsin Department of Natural Resources (Wisconsin DNR), and the U.S Fish and Wildlife Service (FWS). If the reservoir water surface elevation is so modified, the licensee shall notify the Commission, the Wisconsin DNR, and the FWS as soon as possible, but no later than 10 days after each such incident.

Article 403. Within 6 months of the issuance date of this license, in order to monitor the operating mode and impoundment elevations required in Articles 401 and 402, respectively, the licensee shall develop, in consultation with the Wisconsin Department of Natural Resources (Wisconsin DNR) and the U.S. Fish and Wildlife Service (FWS), an operations compliance monitoring plan, and file for Commission approval. This plan shall include, but is not limited to, an implementation schedule and provisions to: (1) install and maintain staff gages visible to the public on or near Biron dam; (2) maintain water level sensors to continuously record the headpond and tailwater elevations; (3) record and maintain daily operating records, including headpond and tailwater elevations, hourly powerhouse and spillway discharge, and turbine operations; (4) reestablish run-of river flows within 15 minutes of turbine shutdown; and (5) provide the Wisconsin DNR and the FWS operating records upon request. The licensee shall provide these monitoring data to the Wisconsin Department of Natural Resources, U.S. Fish and Wildlife Service, and the Commission within 30 days of receiving a written request for such information.

The licensee shall include with the operational compliance monitoring plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the operational compliance monitoring 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.

Project No. 2192-008

- 19 -

The Commission reserves the right to require changes to the plan. No ground-disturbing or land-clearing activities for installing the staff gages shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission, according to the approved schedule.

Article 404. 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 pursuant to Section 18 of the Federal Power Act.

Article 405. Within one year of the issuance date of the license, the licensee shall, after consultation with the Wisconsin Department of Natural Resources (Wisconsin DNR) and the U.S. Fish and Wildlife Service (FWS), file for Commission approval an exotic species control plan to monitor invasive species, such as purple loosestrife (*Lythrum salicaria*), Eurasian water-milfoil (*Myriophyllum spicatum*), and curly-leaf pondweed (*Potamogeton crispus*), at the Biron Hydroelectric Project. The plan shall include, but not be limited to, the following: (1) a description of the monitoring method; (2) frequency of monitoring; (3) documentation of providing the monitoring results to the Wisconsin DNR and FWS; and (4) a description of and implementation schedule for providing public information about the species.

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

If at any time during the term of the license, the Wisconsin DNR and FWS demonstrate the purple loosestrife, Eurasian water-milfoil, or curly-leaf pondweed is significantly affecting fish and wildlife populations at the project and that control measures are needed, and the Commission agrees with those determinations, the Commission may require the licensee to cooperate with the Wisconsin DNR and FWS to undertake reasonable measures to control or eliminate the invasive species in project area. 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.

Project No. 2192-008

- 20 -

Article 406. The licensee shall implement the Biron Hydroelectric Project, FERC No. 2192, Bald Eagle (*Haliaeetus leucocephalus*) Management and Protection Plan (see Application for New License, Appendix E.3.B-B, filed June 26, 1998) approved in ordering paragraph (D) to protect the federally-listed bald eagle and its habitat.

The Commission reserves the right to require changes to the Bald Eagle Management and Protection Plan to ensure adequate protection of the bald eagle and associated habitat.

Article 407. The licensee shall implement the Biron Hydroelectric Project, FERC No. 2192, Karner Blue Butterfly (*Lycaeides melissa samuelis*) Management and Protection Plan (see Application for New License, Appendix E.3.B-C, filed June 26, 1998) approved in ordering paragraph (D) to protect the federally-listed Karner blue butterfly and its habitat. Furthermore, the licensee shall cooperate with the Wisconsin Department of Natural Resources in the development of the Karner blue butterfly Habitat Conservation Plan, including the management of project lands for the species.

The Commission reserves the right to require changes to the Karner Blue Butterfly Management and Protection Plan to ensure adequate protection of the butterfly and associated habitat.

Article 408. Within one year of the issuance date of the license, the licensee shall, after consultation with the Wisconsin Department of Natural Resources (Wisconsin DNR), the National Park Service (NPS), and the Wisconsin State Historic Preservation Officer (Wisconsin SHPO), file for Commission approval a final recreation plan for providing recreation facilities and public access at the Biron Hydroelectric Project. The plan shall include, but not be limited to, the following as specified in the licensee's Application for New License, filed June 26, 1998: (1) develop a project-area recreation resource map showing the main river channel, contours of the river bottom, and available recreation facilities; (2) enhance the boat launch piers at SERA Park, Biron boat launch, and Blue Heron Lane boat launch to accommodate barrier-free access opportunities; (3) enhance the boat launch and parking area at the Blue Heron Lane boat launch facility; (4) coordinate with the Wisconsin DNR to determine the feasibility of constructing a small boat launch facility at Rusty's Backwater Saloon site; (5) add directional/informational signs on River Road and near the Biron Project tailrace fishing access site; and (6) enhance public access to the Biron Project tailrace and improve the canoe portage take-out.

Project No. 2192-008

- 21 -

The licensee shall develop the final recreation plan in conjunction with the Historic Resources Management Plan required in Article 411, so that recreational enhancements do not conflict with the cultural resources in the project area.

The plan shall also include, a construction schedule, the entity responsible for operation and maintenance of the facilities, costs for the construction and yearly maintenance of each facility, proposed measures to control soil erosion and an assessment of such measures, a discussion of how the needs of the disabled were considered in the planning and design of the recreation facilities, documentation of agency consultation, copies of comments and recommendations on the plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments and recommendations are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment 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 shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 409. The licensee, after consultation with the Wisconsin Department of Natural Resources and the National Park Service, shall monitor recreation use at the Biron Hydroelectric Project area to determine whether existing recreation facilities are meeting recreation needs.

During the term of the license, concurrent with filing FERC Form 80, required by Section 8 of the Commission's Regulations (18 CFR § 8.11), the licensee shall file a report with the Commission on the monitoring results. This report shall include: (1) annual recreation use figures; (2) a discussion of the adequacy of the licensee's recreation facilities at the project site to meet recreation demand; (3) a description of the methodology used to collect all study data; (4) if there is a need for additional facilities, measures proposed by the licensee to accommodate recreation needs in the project area; (5) documentation of agency consultation and agency comments on the report after it has been prepared and provided to the agencies; and (6) specific descriptions of how the agencies' comments are accommodated by the report.

The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations prior to filing the report with the Commission. If the licensee

Project No. 2192-008

- 22 -

does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

Article 410. The licensee shall manage project lands as specified in the Biron Hydroelectric Project Land Management Plan (see Application for New License, Appendix E.6, filed June 26, 1998) approved in ordering paragraph (D) to protect and enhance the environmental resources.

Article 411. The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, 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 the Historic Resources Management Plan (HRMP) for the Project. In the event that the Programmatic Agreement is terminated, the licensee shall implement the provisions of its approved HRMP. The Commission reserves the authority to require changes to the HRMP at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the HRMP, the licensee shall obtain Commission 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 412. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if

Project No. 2192-008

- 23 -

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 waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plants; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft 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 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

Project No. 2192-008

- 24 -

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 water craft 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



Project No. 2192-008

- 25 -

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

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

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

Project No. 2192-008

- 26 -

(G) This order is issued under authority delegated to the Director and 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 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 Projects