

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

FPL Energy Maine Hydro LLC

Project No. 2283-053 and
054

ORDER AMENDING LICENSE

(Issued July 15, 2008)

1. By order issued August 23, 2006, the Director, Office of Energy Projects (Director) issued a new license to FPL Energy Maine Hydro LLC (FPL Energy) for its Gulf Island-Deer Rips Project No. 2283, located on the Androscoggin River in Androscoggin County, Maine.¹ On January 19, 2007, the Commission issued an order on rehearing.² Maine Department of Environmental Protection (Maine DEP) now requests that the license be amended to include water quality certification conditions that, for reasons explained below, were not included in the new license when it was issued. This order amends the license as described below.

BACKGROUND

2. Pursuant to section 401(a)(1) of the Clean Water Act (CWA),³ Maine DEP issued water quality certification for the Gulf Island-Deer Rips Project. The certification, which was issued on September 21, 2005, contained 11 conditions. FPL Energy appealed the certification to Maine DEP and requested that the Commission defer issuance of the new license pending resolution of all procedural and technical issues related to the certification. In its appeal, FPL Energy specifically requested amendment of the certification to delete the minimum flow requirements of condition 2, the fish passage provisions of condition 4, the portions of condition 5 that imposed requirements relating to the injection of oxygen at Lower Narrows, a site about three miles above Gulf Island Dam, and requirements in condition 6 that it contribute \$100,000 toward the capital costs of chemical-addition equipment to remove phosphorus from the effluent of a municipal wastewater treatment plant.

¹ *FPL Energy Maine Hydro LLC*, 116 FERC ¶ 62,159 (2006).

² *FPL Energy Maine Hydro LLC*, 118 FERC ¶ 61,043 (2007).

³ 33 U.S.C. § 1341(a)(1).

3. Maine DEP, noting that the conditions of the certification could change as a result of the appeal, also requested that the Commission defer action on the application. Subsequently, FPL Energy forwarded to the Commission a March 30, 2006 order of Maine DEP's Board of Environmental Protection (Board) staying conditions 2, 5.B through G, and 6 until the Board issued a decision on the appeal.

4. In the relicense order, the Director noted that there had been many years of delay in issuing the water quality certification, and, accordingly, also the new license, due to the fact that Gulf Island Pond, the impoundment created by Gulf Island Dam, did not meet applicable Class C dissolved oxygen standards. The Director concluded that further delay in issuing the new license would be unwarranted, but, because the Board had stayed certain of the conditions pending resolution of the appeal, he included in the new license only those conditions of the certification that had not been stayed. Those conditions were attached as Appendix A to the order and made conditions of the license through ordering paragraph (D), which also reserved the Commission's authority to revise the conditions as necessary upon the Board's disposition of the appeal, as well as to modify the license as necessary to ensure its consistency with any final conditions.

5. By letter of February 14, 2008, Maine DEP notified the Commission that, on February 7, 2008, the Board had acted on FPL Energy's appeal and had revised the certification by modifying conditions 5.B through G and deleting condition 6. Maine DEP noted that FPL Energy had earlier withdrawn its appeal of conditions 2 and 4, the latter of which had not been stayed and was included in the new license. Maine DEP stated that the Board's stay of the appealed conditions expired effective with the Board's February 7 action, and it requested that the Commission amend the new license to be consistent with the conditions of the water quality certification, as modified by the Board's action.

6. By letter filed March 28, 2008, FPL Energy explained that it objected to provisions in the revised certification that established the quantity of dissolved oxygen to be injected into the impoundment and the allocation of responsibility for further oxygenation. FPL Energy stated that it had appealed the Board's decision to the Maine superior court. Noting that the appeal process would take at least 6 months and could lead to yet another change in the oxygen enhancement provisions of the certification, FPL Energy requested that the Commission defer amending the license to incorporate the modified certification conditions until after the appeal process has concluded and only if a need for an amendment is found at that time to be necessary.

DISCUSSION

7. The exclusion of conditions 2, 5.B through G, and 6 from the issued license was based on the Board's stay of those conditions while the appeal was pending. Here, there has been no stay of the revised conditions established by the Board, and Maine DEP specifically requests that the license be amended to include those conditions pursuant to

section 401 of the CWA. These factors are controlling and require that the license be amended at this time, even though the Maine superior court could require further modifications to the certification that would entail yet another license amendment.

8. The appendix to this order is a revision of the license order's Appendix A, modified to reflect the action of the Board. As indicated in the relicense order, the disposition of FPL Energy's appeal to the Board could necessitate amending not only the certification conditions included in the license but also other license provisions that might not be consistent with the post-appeal certification conditions. Thus, it is not sufficient here simply to amend Appendix A to incorporate the revised conditions. Rather, the relationship between the revised certification conditions and other conditions of the license must also be considered.

Condition 2.

9. Although FPL Energy withdrew its appeal of condition 2, it will not be sufficient simply to modify Appendix A to include that condition in the license. Condition 2 has four parts, but the principal requirement is found in 2.A, which provides that, except in certain specified situations, the licensee shall release a minimum flow of 1,430 cubic feet per second (cfs) or inflow from the project dams at all times. Because this condition was not included in the license, the Director substituted Article 405, which requires a release of 1,700 cfs from May through November and 1,400 cfs from December through April of each year. The addition of condition 2 and the retention of Article 405 without modification would lead to confusion as to the applicable required minimum flows.

10. Since the requirement for a 1,700-cfs minimum flow release for some months reflected both the Director's conclusions as to needed flows and a recommendation of the U.S. Department of the Interior under section 10(j) of the Federal Power Act, this higher flow release requirement must be retained for the months of May through November. This requirement is not in conflict with Maine DEP's 1,430-cfs minimum flow requirement, which cannot be construed as prohibiting a requirement for even higher releases. However, the present Article 405 requirement for a release of 1,400 cfs in other months must yield to Maine DEP's requirement for a slightly higher 1,430-cfs flow release. Because it is the Commission's policy to include water quality certification conditions without modification in an appendix to the license order, Appendix A will be modified to incorporate condition 2 in its entirety. However, Article 405 will be amended to require the higher flow of 1,430 cfs for December through April and to clarify that, notwithstanding the requirements of condition 2, the licensee must release 1,700 cfs from May through November.

11. Condition 2.D requires the licensee, within 6 months of license issuance, to submit plans for providing and monitoring the minimum flow releases of condition 2.A. Condition 2.D requires that the plans be reviewed by and receive approval of Maine DEP's Bureau of Land and Water Quality. Article 407 of the license requires the

licensee, within 180 days of license issuance, and after consultation with various agencies including Maine DEP, to file for Commission approval a plan to monitor compliance with project operations, including the minimum flows required by Article 405. The licensee filed the plan required by Article 407, and Commission staff approved it by order issued July 10, 2007.⁴ Although the present order slightly increases the required minimum flow for some months, this modification does not otherwise affect the provisions of the plan, which was reviewed by and incorporated recommendations of Maine DEP. Under these circumstances, the inclusion of condition 2.D in the license at this time should not require the filing of a new minimum flow plan.

Condition 5.

12. Since 1992, the licensee and several paper companies (Fraser Paper, Rumford Paper Company, and International Paper), owners of paper mills that discharge into the impoundment, have operated an oxygen injection facility (the Gulf Island Pond Oxygenation Project, or GIPOP, facility) at Upper Narrows, about five miles upstream of Gulf Island Dam, to improve dissolved oxygen in Gulf Island Pond. Despite this, Gulf Island Pond has failed to achieve Class C water quality standards for dissolved oxygen much of the time during the summer. Condition 5 of the certification was drafted to address this problem.

13. Of the seven parts to condition 5, only condition 5.A was included in Appendix A to the new license. Condition 5.A provides that the licensee shall continue to participate in the existing partnership with the paper companies or their successors in interest to operate and maintain the oxygen injection system at Upper Narrows in the manner currently approved by Maine DEP.⁵

14. In the revised certification, condition 5.B provides that the licensee shall submit a plan for conducting ambient water quality monitoring to determine compliance with Class C dissolved oxygen standards in Gulf Island Pond. The monitoring is to provide sufficient data to determine the point of thermal stratification in the pond, to begin no later than June 1, 2008, and to receive approval by Maine DEP.

15. Condition 5.C provides that the licensee shall operate an upgraded oxygen injection system at Upper Narrows and an additional oxygen injection system at Lower Narrows, according to a plan approved by Maine DEP. Condition 5.D provides that the

⁴ *FPL Energy Maine Hydro LLC*, 120 FERC ¶ 62,027 (2007).

⁵ In its March 28, 2008 filing, FPL Energy points out that International Paper has sold its paper mill to Verso Paper; this change is reflected in the Board's revised condition 5 provisions.

licensee shall submit, for Maine DEP's approval, a plan and schedule for upgrading the existing oxygen injection system, which shall be operational no later than June 1, 2009.

16. Condition 5.E provides that the licensee shall submit a plan and schedule, for Maine DEP approval, for injecting sufficient oxygen into Gulf Island Pond to mitigate the impact of Gulf Island Dam on dissolved oxygen levels in the pond. The plan is to provide that, no later than June 1, 2010, the licensee shall inject oxygen at the rate of up to 105,000 pounds a day at Upper Narrows, at an oxygen transfer efficiency rate of 33 percent, or equivalent rates at higher transfer efficiencies and/or other locations, or take other equivalent measures as may be approved by Maine DEP. Condition 5.E further provides that, after recalibration of the water quality model for Gulf Island Pond following correction of an error relating to dispersive mixing, as well as any other future modifications to the model and revisions to Maine DEP's May 2005 Androscoggin River Total Maximum Daily Load (TMDL) Report, Maine DEP would have the right to reopen and modify the terms of the certification to change the rate of oxygen injection.⁶

17. Condition 5.F provides that Verso or Rumford Paper may provide sufficient funding to Maine DEP for the development and use of a hydro-dynamic model to determine mixing and transport within Gulf Island Pond. Condition 5.G provides that the licensee shall be responsible for taking such actions as are needed to meet Class C dissolved oxygen standards in Gulf Island Pond, insofar as Gulf Island Dam causes or contributes to a violation of these standards, and reserves Maine DEP's right to reopen and modify the terms of the certification to require reasonable changes in the oxygen injection systems or oxygen injection rates, or other equivalent measures, as may be needed to ensure that Gulf Island Dam does not cause or contribute to the violation of Class C dissolved oxygen standards in Gulf Island Pond.

18. In its March 28, 2008 letter, FPL Energy states that it objects to the condition 5.C requirement for an additional oxygenation system at Lower Narrows, to the specified rate of injection and reopener provisions of condition 5.E, and to Maine DEP's right under condition 5.G to reopen the certification to revise the oxygenation requirement based on new modeling. Nevertheless, these and the other conditions of the revised certification will be incorporated into a revised Appendix A as license conditions, for the reasons explained earlier in this order. The only pertinent question here is the extent to which other conditions in the new license must be modified to accommodate the revised condition 5.

19. Conditions 5.B through G of the certification as originally issued contained provisions that were similar in many respects to those in the revised conditions.⁷

⁶ Conditions 5.B through E provide that any of the specified measures may be taken by the licensee independently or in cooperation with the paper companies.

⁷ Conditions 5.B through F contained requirements for injection of specified

Although these provisions were not included in Appendix A of the new license, the issues with which they are concerned were addressed by license Articles 402 and 403.

Article 402 requires the licensee to continue its partnership with the paper companies in operating the existing oxygen injection system and to file a dissolved oxygen plan for Commission approval. Article 403 requires the licensee to file, for Commission approval, a plan to monitor water quality at select sites in Gulf Island Pond and in the Androscoggin River downstream of the project to ensure compliance with Maine's Class C water quality standards for dissolved oxygen, water temperature, and nutrients. In issuing the new license, the Director concluded that the plans required by these articles were preferable to the stayed certification conditions, which appeared to place the entire burden on the licensee of attaining Class C water quality standards in Gulf Island Pond rather than to apportion this responsibility among the licensee and the paper companies, but he stated that the certification conditions would have to be included in the new license if they were sustained on appeal.⁸

20. In its March 28, 2008 letter, FPL Energy asserts that it has essentially already complied with revised condition 5.B by filing the Article 403 water quality monitoring plan, which was approved by Commission staff on November 28, 2007.⁹ As required by Article 403, the approved plan was developed in consultation with several specified agencies, including Maine DEP, and it reflected changes made after receipt of comments from Maine DEP on October 30, 2007. In conformance with revised certification condition 5.B, the approved plan provides for monitoring to begin the week of June 1, 2008. Condition 5.B also requires that the water quality monitoring provide sufficient data to determine the point of thermal stratification in the pond. This requirement should be met by implementation of the approved plan, which includes monitoring dissolved oxygen and temperature at the Deep Hole Station, located 0.6 miles north of Gulf Island Dam, at 1-meter intervals from top to bottom. The approved plan thus appears to meet the requirements of condition 5.B, so that no further plan need be submitted. Since the plan has already been submitted, and since Article 403 contains no requirements

amounts of oxygen at Upper Narrows and Lower Narrows, for plans and schedules for injecting the oxygen, and for follow-up monitoring and reporting to ensure that the additional oxygenation and reduced point source discharges are sufficient to meet Class C dissolved oxygen standards in Gulf Island Pond. Condition 5.G provided that the licensee would be responsible for taking such actions as are needed to meet Class C standards insofar as Gulf Island Dam causes or contributes to a violation of those standards.

⁸ 116 FERC ¶ 62,159 at P 89-90.

⁹ *FPL Energy Maine Hydro, LLC*, 121 FERC ¶ 62,146 (2007).

inconsistent with the revised certification, there is no need to modify or delete Article 403.¹⁰

21. Article 402 of the new license provides that the licensee must file for Commission approval a dissolved oxygen enhancement plan to coordinate efforts among the licensee and the paper companies to protect and improve conditions in Gulf Island Pond and in the Androscoggin River downstream of the project. The plan is to include measures to improve dissolved oxygen in Gulf Island Pond, a description of the licensee's responsibility in implementing the measures, a feasibility assessment of each such measure to improve dissolved oxygen, a provision for monitoring dissolved oxygen after the measures have been implemented, and a schedule for implementing the plan. Article 402 requires the licensee to prepare the enhancement plan in consultation with the paper companies and Maine DEP, among other entities.

22. Because the plan required by Article 402 was related to portions of condition 5 that FPL Energy had appealed, FPL Energy, by letter of July 16, 2007, requested an extension of time until July 1, 2008, to file it. Staff granted this request by unpublished order issued August 16, 2007. In its March 28, 2007 letter, which was in part a progress report required by staff's unpublished order, FPL Energy does not actually request a further extension of time to file the Article 402 plan, even though it urges the Commission to defer action on amending the license until the appeal process has concluded. In addition, FPL Energy states that it intends to file a plan to upgrade the existing oxygen injection system by July 1, 2008.

23. Condition 5 of the revised water quality certification establishes various requirements fashioned to increase dissolved oxygen to meet Class C water quality standards in Gulf Island Pond. These include the development of plans to operate an upgraded oxygen injection system at Upper Narrows and an additional oxygen injection system at Lower Narrows, and to inject oxygen into Gulf Island Pond at a specified rate and oxygen transfer efficiency. Condition 5 provides for the approval of those plans by Maine DEP. By its revisions to condition 5, the Board is requiring the licensee to inject an even greater amount of dissolved oxygen into Gulf Island Pond than was required by the original condition.¹¹ This modification thus does not alleviate the concern expressed

¹⁰ Ordering paragraph (B) of the November 2007 order approving the Article 403 plan provided that the licensee shall file the results of the annual monitoring program with the Commission, after consultation with Maine DEP and other agencies, by March 15 of each year. Ordering paragraph (B) also provided that the Commission may direct the licensee to modify project structures or operations if the results of the monitoring indicate that such changes are necessary to ensure that the project maintains state water quality standards. This requirement is not inconsistent with the condition 5.B water quality monitoring plan requirements.

¹¹ In contrast to the revised oxygen injection requirement of up to 105,000 pounds

in the license order that an undue amount of the responsibility for addressing the dissolved oxygen problem in Gulf Island Pond is being placed on the licensee. Nevertheless, the Commission may not omit water quality certification conditions from a license.¹²

24. In light of these revised condition 5 requirements, it would be needlessly duplicative for the licensee to file a separate dissolved oxygen enhancement plan for Commission approval pursuant to Article 402, which will therefore be deleted from the license. However, the Commission must still approve all plans and possible future changes to project works or operations that may be approved or required by Maine DEP under condition 5. Therefore, license Article 401, which already requires notification to, and the filing of amendment applications with, the Commission in respect to provisions of certification conditions 1, 3, and 4, will be amended to require that the licensee also obtain Commission approval of plans and future changes specified in condition 5.¹³

25. Article 403, paragraph (5), of the license provides that the water quality monitoring plan shall include a provision to address any long-term monitoring needs associated with enhancement measures implemented under Article 402. Since the dissolved oxygen enhancement measures are now to be specified in condition 5 of the certification rather than in Article 402, subparagraph (5) of Article 403 will be amended to reflect this change.¹⁴

per day at Upper Narrows, original condition 5.B required the licensee to inject up to 14,700 pounds per day of oxygen at Upper Narrows and up to 55,900 pounds per day of oxygen at Lower Narrows.

¹² Although condition 5.F must be included in the license, it is directed to actions of the paper companies and Maine DEP and places no obligations on the licensee. Since the Commission has authority to require actions only of its licensees, there is nothing in condition 5.F that the Commission could enforce.

¹³ Although condition 5.C requires the licensee to operate an additional oxygen injection facility at Lower Narrows according to a plan approved by Maine DEP, “as is further described below,” condition 5 makes no further mention of Lower Narrows, let alone of a plan to construct a facility and inject oxygen there. At most, condition 5.E, in providing that the oxygen injection plan may include the alternative of injecting oxygen “at equivalent rates at higher transfer efficiencies and/or other locations,” perhaps suggests the possibility of injecting oxygen at a Lower Narrows facility. Nevertheless, because condition 5.C clearly requires the operation of a Lower Narrows facility according to a plan, Article 401 will require that this plan be filed for Commission approval.

¹⁴ In its November 2007 order approving the Article 403 plan, staff noted the

Condition 6.

26. Staff did not include condition 6 in Appendix A to the relicense order. Staff concluded that the licensee should not have to bear the entire cost of resolving the problem of algal blooms caused by phosphorus, since the project did not produce the phosphorus, and that the Article 403 requirement for a water quality monitoring plan would address this issue sufficiently.¹⁵ Since the Board has now deleted condition 6, and since staff has already included a measure to address the phosphorus issue, no change need be made to Appendix A in respect to this condition.

The Director orders:

(A) Appendix A to the license issued August 23, 2006, for the Gulf Island-Deer Rips Project No. 2283 is replaced with the appendix to this order.

(B) Article 401 of the license for the Gulf Island-Deer Rips Project No. 2283 is retitled *Commission Reporting, Filing of Amendments, and Commission Approval*. Paragraph (b) of Article 401 is amended to read as follows:

(b) Requirement to File Amendment Applications

Certification conditions Nos. 4 and 5 in Appendix A of this license contemplate future changes to project operations or facilities for the purpose of mitigating environmental impacts. These changes may not be implemented without prior Commission authorization granted after the filing of an application to amend the license. These conditions are listed below.

WQC Condition No.	Modification
4	Structural changes to provide fish passage
5	Changes to oxygen injection systems, rates of oxygen injection, or other equivalent measures to ensure compliance with dissolved oxygen standards

(C) Article 401 is amended to add subsection (c) as follows:

licensee's intention to submit a plan or modify the Article 403 plan to address any long-term water quality monitoring needs associated with the enhancement measures required by Article 402 once the dissolved oxygen enhancement issue was resolved.

¹⁵ 116 FERC ¶ 62,159 at P 95.

(c) Requirement to File Plans for Commission Approval

Conditions of this license found in Maine Department of Environmental Protection's (Maine DEP) water quality certification (Appendix A) require the licensee to prepare plans and schedules for approval by Maine DEP and to implement specific measures without prior Commission approval. Each such plan and schedule shall also be submitted to the Commission for approval. These plans are listed below.

WQC Condition No.	Plan	Due Date
5.C and D	Operation of upgraded oxygen injection system at Upper Narrows and additional oxygen injection system at Lower Narrows	September 1, 2008
5.E	Injection of oxygen into Gulf Island Pond	September 1, 2009

The Commission reserves the right to make changes to any plan submitted. Upon Commission approval, each 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.

(D) Article 402 of the license is deleted.

(E) Article 403, paragraph (5) of the license is amended to read as follows:

- (5) a provision to address any long-term water quality monitoring needs associated with enhancement measures implemented under conditions 5.C through G of the water quality certification issued September 21, 2005, by the Maine Department of Environmental Protection, as modified by the Board of Environmental Protection on February 7, 2008.

(F) Article 405 of the license for the Gulf Island-Deer Rips Project No. 2283 is amended to read as follows:

Article 405. Minimum Instream Flows. Upon approval of the plan required by Article 407 of this license, and notwithstanding any lower minimum flow requirements of condition 2 of the water quality certification issued by the Maine Department of Environmental Protection (Maine DEP) as set out in Appendix A to this license, the licensee shall release from the Gulf Island-Deer Rips Project into the Androscoggin River downstream from the confluence of the Deer Rips and the Androscoggin No. 3 tailraces a seasonal minimum flow of 1,700 cubic feet per second (cfs) from May 1 through

November 30 and 1,430 cfs from December 1 through April 30, or inflow, whichever is less, for the protection and enhancement of water quality and fishery resources in the Androscoggin River downstream from the Gulf Island-Deer Rips Project.

This flow may be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods upon agreement between the licensee, Maine DEP, the Maine Department of Inland Fisheries and Wildlife (Maine DIFW), the Maine Department of Marine Resources (Maine DMR), and the U.S. Fish and Wildlife Service (FWS). If the flow is so modified, the licensee shall notify the Commission, the Maine DEP, the Maine DIFW, the Maine DMR, and the FWS as soon as possible, but no later than ten days after each such incident.

(G) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of this order, pursuant to 18 C.F.R. §385.713.

Joseph D. Morgan
Director
Division of Hydropower Administration
and Compliance

APPENDIX

APPENDIX A

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
CERTIFICATION UNDER SECTION 401 OF THE
FEDERAL CLEAN WATER ACT

1. WATER LEVELS

- A. Except as temporarily modified by (1) approved maintenance activities, (2) extreme hydrologic conditions, as define below, (3) emergency electrical system conditions, as defined below, or (4) agreement between the applicant and appropriate state and/or federal agencies, water levels in the project impoundments shall be maintained as follows:
- In Gulf Island Pond, within one foot of full pond level from May 1 through June 30 and within four feet of full pond from July 1 through April 30 annually; and
 - In the Deer Rips impoundment, within one foot of full pond under run-of-river operation at all times.
- B. “Extreme Hydrologic Conditions” means the occurrence of events beyond the Licensee’s control such as, but not limited to, abnormal precipitation, extreme runoff, flood conditions, ice conditions or other hydrologic conditions such that the operational restrictions and requirements contained herein are impossible to achieve or are inconsistent with the safe operation of the Project.
- C. “Emergency Electrical System Conditions” means operating emergencies beyond the applicant's control which require changes in flow regimes to eliminate such emergencies which may in some circumstances include, but are not limited to, equipment failure or other temporary abnormal operating conditions, generating unit operation or third-party mandated interruptions under power supply emergencies, and orders from local, state, or federal law enforcement or public safety authorities.
- D. The applicant shall, within 6 months of issuance of a New License for the project by FERC or upon such other schedule as established by FERC, submit plans for providing and monitoring the impoundment water levels required by Part A of this condition. These plans shall be reviewed by and must receive approval of the DEP Bureau of Land and Water Quality.

2. MINIMUM FLOWS

- A. Except as temporarily modified by (1) approved maintenance activities, (2) extreme hydrologic conditions, as define below, (3) emergency electrical system conditions, as defined below, or (4) agreement between the applicant and appropriate state and/or federal agencies, an instantaneous minimum flow of 1,430 cfs or inflow, whichever is less, shall be released from the project dams at all times.
- B. “Extreme Hydrologic Conditions” means the occurrence of events beyond the Licensee’s control such as, but not limited to, abnormal precipitation, extreme runoff, flood conditions, ice conditions or other hydrologic conditions such that the operational restrictions and requirements contained herein are impossible to achieve or are inconsistent with the safe operation of the Project.
- C. “Emergency Electrical System Conditions” means operating emergencies beyond the applicant’s control which require changes in flow regimes to eliminate such emergencies which may in some circumstances include, but are not limited to, equipment failure or third-party mandated interruptions under power supply emergencies, and orders from local, state, or federal law enforcement or public safety authorities.
- D. The applicant shall, within 6 months of issuance of a New License for the project by FERC or upon such other schedule as established by FERC, submit plans for providing and monitoring the minimum flow releases required by Part A of this condition. These plans shall be reviewed by and must receive approval of the DEP Bureau of Land and Water Quality.

3. DOWNRAMPING OF FLOWS

- A. Except as temporarily modified by (1) approved maintenance activities, (2) extreme hydrologic conditions, as define below, (3) emergency electrical system conditions, as defined below, or (4) agreement between the applicant and appropriate state and/or federal agencies, the downramping of flows from the Deer Rips development from full generating flow to the required minimum flow shall be restricted to a rate no faster than linearly over 20 minutes.
- B. “Extreme Hydrologic Conditions” means the occurrence of events beyond the Licensee’s control such as, but not limited to, abnormal precipitation, extreme runoff, flood conditions, ice conditions or other hydrologic conditions such that the operational restrictions and requirements contained herein are impossible to achieve or are inconsistent with the safe operation of the Project.

- C. "Emergency Electrical System Conditions" means operating emergencies beyond the applicant's control which require changes in flow regimes to eliminate such emergencies which may in some circumstances include, but are not limited to, equipment failure or other temporary abnormal operating condition, generating unit operation or third-party mandated interruptions under power supply emergencies, and orders from local, state, or federal law enforcement or public safety authorities.
- D. The applicant shall, within 6 months of issuance of a New License for the project by FERC or upon such other schedule as established by FERC, submit plans for providing the downramping of flows from the Deer Rips Development required by Part A of this condition. These plans shall be reviewed by and must receive approval of the DEP Bureau of Land and Water Quality.

4. FISH PASSAGE FACILITIES

Based on a written request from the Atlantic Salmon Commission that fish passage facilities be installed on the main stem of the Androscoggin River above Lewiston Falls to facilitate the restoration of Atlantic salmon, the applicant shall install such fish passage facilities as may be required by the Department, after notice to the applicant and the opportunity for a hearing, to allow the migration of Atlantic salmon into and out of the river above the project dams.

5. GULF ISLAND POND OXYGENATION

- A. The applicant shall, effective on the date of issuance of this certification, continue to participate in the partnership with Fraser Paper, Rumford Paper Company, and International Paper or their successors in interest, as described in section 4(c) of this certification, to operate and maintain an oxygen injection system at Upper Narrows in such manner as is currently approved by the Department.
- B. By March 1, 2008, the applicant shall, independently or in cooperation with Verso Paper, Rumford Paper and Fraser Paper, or their successors-in-interest, submit a plan for conducting ambient water quality monitoring to determine compliance with Class C dissolved oxygen standards in Gulf Island Pond under current and future conditions. This monitoring shall provide sufficient data to determine the point of thermal stratification in the pond and shall begin no later than June 1, 2008. This plan shall be reviewed by and must receive the approval of the Department.
- C. The applicant shall, independently or in cooperation with Verso Paper, Rumford Paper and Fraser Paper, or their successors-in-interest, operate an upgraded oxygen injection system at Upper Narrows and an additional oxygen injection

system at Lower Narrows in Gulf Island Pond, according to a plan approved by the Department, as is further described below.

- D. By June 1, 2008, the applicant shall, independently or in cooperation with Verso Paper, Rumford Paper and Fraser Paper, or their successors-in-interest, submit a plan and schedule for upgrading the existing Gulf Island Pond oxygen injection system to increase the oxygen transfer efficiency of the system and thereby increase dissolved oxygen levels in the pond. The upgraded oxygen injection system shall be operational no later than June 1, 2009. The plan and schedule shall be reviewed by and must receive the approval of the Department.
- E. By June 1, 2009, the applicant shall, independently or in cooperation with Verso Paper, Rumford Paper and Fraser Paper, or their successors-in-interest, submit a plan and schedule for injecting sufficient oxygen into Gulf Island Pond to mitigate the impact of Gulf Island Dam on dissolved oxygen levels in the pond. The plan shall provide that, beginning no later than June 1, 2010, the applicant shall inject oxygen at the rate of up to 105,000 pounds per day at Upper Narrows in Gulf Island Pond, at an oxygen transfer efficiency of 33%, or equivalent rates at higher transfer efficiencies and/or other locations, or take other equivalent measures as may be approved by the Department. The plan and schedule for injecting oxygen into Gulf Island Pond shall be reviewed by and must receive the approval of the Department.

After re-calibration of the water quality model for Gulf Island Pond following correction of an error relating to dispersive mixing, as well as any other future modifications to the model and revisions to the Department's May 2005 Androscoggin River Total Maximum Daily Load (TMDL) Report, and after notice to the applicant and opportunity for hearing, the Department reserves the right to re-open and modify the terms of this certification to change the rates of oxygen injection specified above.

- F. By March 1, 2008, Verso or Rumford Paper may, independently or in cooperation with other parties, provide sufficient funding to the Department for the development and use of a hydro-dynamic model to determine mixing and transport within Gulf Island Pond. This model shall be developed by the Department or by a third party under contract to the Department and must be supported by the Environmental Protection Agency. A final modeling report must be provided to FPLE and other interested parties no later than November 1, 2009. After reviewing the report on the results of any hydro-dynamic model developed for Gulf Island Pond, and after notice to FPLE and opportunity for public hearing, the Department reserves the right to re-open and modify the terms of this certification to require changes in oxygen injection system(s) and/or oxygen injection rates, or changes in other equivalent measures, as may be deemed necessary to ensure that

Gulf Island Dam does not cause or contribute to the violation of Class C dissolved oxygen standards in Gulf Island Pond.

G. The applicant shall be responsible for taking such actions as are needed to meet Class C dissolved oxygen standards in Gulf Island Pond, insofar as Gulf Island Dam causes or contributes to a violation of these standards. After reviewing the results of monitoring following the implementation all additional oxygen injection or other equivalent measures and all reductions in point source discharges required pursuant to the Department's May 2005 Androscoggin River Total Maximum Daily Load (TMDL) Report and any future revisions thereto, and after notice to the applicant and opportunity for hearing, the Department reserves the right to reopen and modify the terms of this certification to require reasonable changes in oxygen injection system(s) and/or oxygen injection rates, or changes in other equivalent measures, as may be deemed necessary to ensure that Gulf Island Dam does not cause or contribute to the violation of Class C dissolved oxygen standards in Gulf Island Pond.

6. GULF ISLAND POND PHOSPHORUS CONTROL [deleted by Maine Board of Environmental Protection]

7. RECREATIONAL ACCESS AND USE FACILITIES

A. The applicant shall develop, maintain and monitor the new and existing public recreational access and use facilities, and shall develop and maintain the facility improvements, as described in Section 8 of this order.

B. The applicant shall, within one year of issuance of a New License for the project by FERC or upon such other schedule as established by FERC, submit plans for developing, maintaining and monitoring the recreational access and use facilities required by Part A of this condition. These plans shall be reviewed by and must receive approval of the DEP Bureau of Land and Water Quality.

8. LIMITS OF APPROVAL

This approval is limited to and includes the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. All variances from the plans and proposals contained in said documents are subject to the review and approval of the Department prior to implementation.

9. COMPLIANCE WITH ALL APPLICABLE LAWS

The applicant shall secure and appropriately comply with all applicable federal, state and local licenses, permits, authorizations, conditions, agreements and orders required

for the operation of the project, in accordance with the terms of this certification.

10. EFFECTIVE DATE

This water quality certification shall be effective concurrent with the effective date of the new license issued for the project by the Federal Energy Regulatory Commission.

11. SEVERABILITY

In the event that any provision, or part thereof, of this certification is declared to be unlawful by a reviewing court, the remainder of the certification shall remain in full force and effect, and shall be construed and enforced in all respects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

[WATER QUALITY CERTIFICATION TEXT - - RELEVANT EXCERPTS]

4. DISSOLVED OXYGEN

c. Oxygenation Project. Based on the results of the water quality modeling, DEP worked with the paper companies and Central Maine Power Company to evaluate alternatives for improving DO levels in Gulf Island Pond and in the Deer Rips and Lewiston Falls impoundments. It was determined that injecting oxygen directly into Gulf Island Pond was the most viable option.

CMP (now FPL Energy) then voluntarily joined with James River Company (now Fraser Paper), Boise-Cascade (now Rumford Paper Company), and International Paper Company to form the Gulf Island Pond Oxygenation Partnership. The Partnership has been responsible for constructing, operating and maintaining an oxygenation injection facility, known as the Gulf Island Pond Oxygenation Project (GIPOP), located at a site about 5 miles upstream of Gulf Island Dam called Upper Narrows, one of two hydrologic constrictions on the pond. The facility has been operational since June 1, 1992. FPL Energy pays 14% of annual GIPOP operating and maintenance costs, pursuant to the GIPOP Agreement of General Partnership dated January 9, 1991.

Initially, GIPOP was operated to inject 73,000 pounds of oxygen into Gulf Island Pond (resulting in a dissolved oxygen input of 27,000 pounds) every 24 hours from July 1 to September 30 annually. In 1999, the DEP approved a revised GIPOP operational plan designed to maximize the transfer of oxygen when not needed to meet water quality standards and to minimize the transfer of oxygen when not needed to meet standards. Under the revised operational plan, GIPOP operation begins and ends when the 3-day average water temperature at Turner Bridge is greater than 18 degrees Celsius in June and

less than 21 degrees Celsius in September, respectively. Once begun in June, GIPOP operation continues until ending in September, with oxygen injection rates ranging from 8,000 to 91,000 pounds per day depending on river flows and water temperatures.

Water quality monitoring since 1992 indicates that, initially after the operation of GIPOP began, there were significant improvements in DO levels in Gulf Island Pond. However, there has been minimal additional improvement in DO levels since 1993, and present DO levels in the impoundment still fail to attain applicable standards.

In addition, water quality monitoring since GIPOP went on-line in 1992 indicates that DO standards are maintained in the Deer Rips and Lewiston Falls impoundments, as well as in the river below Lewiston Falls, as long as DO levels of at least 5 parts per million are achieved in the Gulf Island Tailrace.

* * *

8. FISHING AND RECREATION IN AND ON THE WATER

a. Existing Uses. Major recreational uses in the project area include bank and boat fishing, hunting, trail travel activities, and recreational boating. Continuing improvements in water quality and in the availability of game fish for angling are expected to result in growing recreational use in the future.

b. Existing Recreational Facilities. Existing recreational facilities on Gulf Island Pond include: an informal boat access site located on applicant-owned land at the end of East Waterman Road in Auburn; a commercial airport and float plane base in Turner; an informal picnic and boat access site located on applicant-owned land in Greene; a public parking and boat launch facility developed in 1989 by the prior licensee at the Turner Bridge site; three day-use and picnic sites on applicant-owned islands; and an informal day-use, picnic and fishing site on applicant-owned land at the south end of Goggins Island in Leeds.

Access to the Deer Rips impoundment is currently provided at an informal carry-in boat access site located on applicant-owned land along Switzerland Road in Lewiston.

Informal access to the river below Deer Rips Dam is available across applicant-owned land below the Deer Rips powerhouse in Auburn.

c. Applicant's Proposals. In 1989, the prior licensee developed a Comprehensive Recreational Facilities Plan which was designed to meet current and anticipated public recreational needs at CMP-owned hydro projects. Based on this plan, and after consultations with resource agencies, local interest groups, and the affected

municipalities, the applicant proposes to undertake the following measures to protect and enhance recreational access and use in the project area:

- Limit normal weekly impoundment drawdowns of Gulf Island Pond to no greater than one foot from May 1 through June 30, and four feet from July 1 through April 30;
- Continue to operate the Deer Rips development as a run-of-river facility, with minimal impoundment fluctuations during normal project operations;
- Maintain the new boat launch facility at the Turner Bridge site;
- Monitor use and make improvements as needed at the Turner Bridge site;
- Maintain three existing island day use-picnic areas and three existing informal day use and boat/fishing access areas on Gulf Island Pond (Waterman Road site, Greene site, and Goggins Island site);
- Monitor use and make improvements as needed at the Goggins Island site;
- Investigate the feasibility of developing a formal carry-in boat access site to the Androscoggin River below Deer Rips;
- Investigate the feasibility of developing a formal carry-in boat access site at Waterman Road;
- Continue to allow access to the Deer Rips impoundment across applicant-owned land at the Switzerland Road site, and improve existing road-side parking at the site;
- Continue to allow access to the Deer Rips tailrace area across applicant-owned land adjacent to the Deer Rips powerhouse;
- Install and maintain a canoe portage trail at each of the project dams; and
- Develop a conservation and trail plan for all FPL-owned land within 200 feet of the high water elevation of the project impoundments.

d. Agency Comments. The Department of Conservation (DOC) comments that the State owns a 2,262 acre parcel along the West Shore of Gulf Island Pond that was purchased through the Land for Maine's Future Program with the intent to preserve the scenic,

undeveloped character of the shoreline and to permit passive public recreational access to the area. The DOC also comments that the applicant's proposals for recreational access are consistent with the agency's management plans for the State parcel on Gulf Island Pond and should be adequate to meet public access in the project area.

e. Discussion. There is a reasonable assurance that the applicant's proposals to protect and enhance recreational access and use in the project area will be adequate to ensure that the project waters will be suitable for the designated use of recreation in and on the water, subject to the other provisions of this Order.

Document Content(s)

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