



The State of New Hampshire
Department of Environmental Services



Michael P. Nolin
Commissioner

TransCanada Hydro Northeast, Inc.
Attention: John Ragonese, FERC License Manager
4 Park Street
Concord, NH 03301-6373

WATER QUALITY CERTIFICATION

In Fulfillment of

Section 401 of the United States Clean Water Act (33 U.S.C 1341)

WQC # 2006-008

Activity Name	Vernon Hydroelectric Project (FERC No. 1904), Turbine Unit Upgrade
Activity Location	Hinsdale, New Hampshire; Vernon, Vermont
Affected Surface Waters	Connecticut River
Owner/Applicant	TransCanada Hydro Northeast, Inc. 4 Park Street Concord, NH 03301-6373
DATE OF APPROVAL (subject to Conditions below)	July 3, 2006

A. INTRODUCTION

TransCanada Hydro Northeast, Inc. (Applicant) owns and operates the Vernon Hydroelectric Project. The Applicant proposes the installation and operation of four 4-MW units (Activity), rather than the installation and operation of two 14-MW units authorized under a license amendment in 1992. Economic infeasibility precluded the Applicant from installing the two 14-MW units, which were intended to replace the existing four 2-MW units. The Vernon Hydroelectric Project consists of a dam, powerhouse, and appurtenances. The powerhouse contains a total of 10 turbine units. Unit #5 through Unit #8 is the subject of the proposed changes to the Activity.

This 401 Water Quality Certification (Certification) applies to the Activity described above, and addresses all surface waters that may be impacted by the Activity, including, but not necessarily limited to, the waters included in the Activity boundary. Pursuant to the New England Interstate Water Pollution Control Compact under RSA 484 and 10 VSA §1331-1342, this 401 Certification documents laws and regulations, determinations, and 401 Certification conditions relative to the

attainment/maintenance of NH surface water quality standards including NH RSA 485-A:8 II, NH Code of Administrative Rules Env-Ws 1700, Vermont 10 VSA Chapters 41 (Regulation of Stream Flow) and 47 (Water Pollution Control), and the Vermont Water Quality Standards adopted on June 10, 1999.

B. WATER QUALITY CERTIFICATION APPROVAL

Based on the findings and conditions noted below, the New Hampshire Department of Environmental Services (DES), in consultation with the Vermont Department of Conservation (VTDEC), has determined that any discharge associated with the Activity will not violate surface water quality standards, or cause additional degradation in surface waters not presently meeting water quality standards. DES hereby issues this 401 Certification subject to the conditions defined in Section E of this 401 Certification, in accordance with Section 401 of the United States Clean Water Act (33 U.S.C. 1341).

C. STATEMENT OF FACTS AND LAW

- C-1. Section 23 of the United States Federal Power Act (Title 16 U.S. Code, Chapter 12, Subchapter I, Section 817(1)) states, in part: "It shall be unlawful for any person, State, or municipality, for the purpose of developing electric power, to construct, operate, or maintain any dam, water conduit, reservoir, power house, or other works incidental thereto across, along, or in any of the navigable waters of the United States, or upon any part of the public lands or reservations of the United States (including the Territories), or utilize the surplus water or water power from any Government dam, except under and in accordance with the terms of a permit or valid existing right-of-way granted prior to June 10, 1920, or a license granted pursuant to this chapter."
- C-2. Section 4 of the United States Federal Power Act (Title 16, U.S. Code, Chapter 12, Subchapter I, Section 797(e)) authorizes the Federal Energy Regulatory Commission "To issue licenses to citizens of the United States, or to any association of such citizens, or to any corporation organized under the laws of the United States or any State thereof, or to any State or municipality for the purpose of constructing, operating, and maintaining dams, water conduits, reservoirs, power houses, transmission lines, or other Project works necessary or convenient for the development and improvement of navigation and for the development, transmission, and utilization of power across, along, from, or in any of the streams or other bodies of water over which Congress has jurisdiction..."
- C-3. Section 401 of the United States Clean Water Act (Title 33 U.S. Code, Chapter 26, Subchapter IV, Section 1341) states, in part: "Any applicant for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will

originate...that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this title."

- C-4. Section 401 states, in part: "No license or permit shall be granted until the certification required by this section has been obtained or has been waived...No license or permit shall be granted if certification has been denied by the State..."
- C-5. Section 401 states, in part "Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations...and shall become a condition on any Federal license or permit subject to the provisions of this section."
- C-6. The boundary between New Hampshire and Vermont is the low-water mark of the Connecticut River on the western (Vermont) side, as it existed before the creation of the reservoirs. Project facilities and reservoirs are located in both states, and the discharge affects the quality of the waters of both states. Consequently, under the provisions of Section 401, the Project is subject to the water quality standards of New Hampshire and Vermont
- C-7. In New Hampshire, Env-Ws 1700, Surface Water Quality Regulations, effective December 3, 1999, fulfills the requirements of Section 303 that the State of New Hampshire adopt water quality standards consistent with the provisions of the Clean Water Act.
- C-8. In Vermont, 10 VSA Chapters 41 (Regulation of Stream Flow) and 47 (Water Pollution Control) and the Vermont Water Quality Standards adopted on June 10, 1999, fulfill the requirements of Section 303 of the Act that Vermont adopt and administer water quality standards consistent with the provisions of the Clean Water Act.
- C-9. Env-Ws 1701.02, entitled "Applicability", states that:
 - "(a) These rules shall apply to all surface waters.
 - (b) These rules shall apply to any person who causes point or nonpoint source discharge(s) of pollutants to surface waters, or who undertakes hydrologic modifications, such as dam construction or water withdrawals, or who undertakes any other activity that affects the beneficial uses or the level of water quality of surface waters."
- C-10. The reaches of the Connecticut River potentially affected by the Activity have been designated by the New Hampshire legislature as Class B waters. Class B waters shall be high quality waters with no objectionable physical characteristics, are acceptable for fishing, swimming and other recreational purposes and, after adequate treatment, for use as water supplies.

- C-11. The DES assessment unit identification numbers for the reaches of the Connecticut River potentially affected by the Activity are NHIMP801070507-01 (upstream from Vernon Dam) and NHRIV802010501-05 (downstream from Vernon Dam).
- C-12. The reaches of the Connecticut River affected by the Activity have been designated by the Vermont Water Resources Board as Class B waters. Class B waters are managed to achieve and maintain a high level of quality compatible with certain beneficial values and uses. Values are high quality habitat for aquatic biota, fish and wildlife and a water quality that consistently exhibits good aesthetic value; uses are public water supply with filtration and disinfection, irrigation and other agricultural uses, swimming, and recreation, including fishing.
- C-13. RSA 484 and 10 VSA §1331-1342 established the New England Interstate Water Pollution Control Compact (Compact). Article V of the compact provides "...technical experts employed by state departments of health and state water pollution control agencies are authorized to confer on questions relating to classification of interstate waters affecting 2 or more states." Article VI provides "Each of the signatory states pledges to ... maintain the waters thereof in a satisfactory condition consistent with the highest classified use of each body of water."
- C-14. Env-Ws 1701.02 provides that the surface water quality regulations shall apply to all surface waters and to any person who causes point or nonpoint source discharge(s) of pollutants to surface waters, or who undertakes hydrologic modifications, such as dam construction or water withdrawals, or who undertakes any other activity that affects the beneficial uses or the level of water quality of surface waters.
- C-15. Env-Ws 1702.46 defines surface waters as "perennial and seasonal streams, lakes, ponds and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses and other bodies of water, natural or artificial," and waters of the United States as defined in 40 CFR 122.2.
- C-16. Surface waters are navigable waters for the purposes of certification under Section 401 of the Clean Water Act. Surface waters are jurisdictional wetlands for the purposes of wetlands permitting under RSA 482-A.
- C-17. Env-Ws 1703.01 (c) states that "[a]ll surface waters shall provide, wherever attainable, for the protection and propagation of fish, shellfish and wildlife, and for recreation in and on the surface waters."
- C-18. Env-Ws 1703.01 (d) states that "[u]nless the flows are caused by naturally occurring conditions, surface water quantity shall be maintained at levels adequate to protect existing and designated uses."

- C-19. Env-Ws 1703.03(c)(1) states that "All surface water shall be free from substances in kind or quantity which:
- a. Settle to form harmful deposits;
 - b. Float as foam, debris, scum or other visible substances;
 - c. Produce odor, color, taste or turbidity which is not naturally occurring and would render it unsuitable for its designated uses;
 - d. Result in the dominance of nuisance species; or
 - e. Interfere with recreational activities."
- C-20. Env-Ws 1703.07(d) provides that "Unless naturally occurring...surface waters within the top 25 percent of depth of thermally unstratified lakes, ponds, impoundments and reservoirs or within the epilimnion shall contain a dissolved oxygen content of at least 75 percent saturation, based on a daily average and an instantaneous minimum dissolved oxygen content of at least 5 mg/l. Unless naturally occurring, the dissolved oxygen content below those depths shall be consistent with that necessary to maintain and protect existing and designated uses."
- C-21. For waters designated cold water fish habitat, the Vermont water quality standards provide for a dissolved oxygen concentration of "(n)ot less than 7 mg/l or 75 percent saturation at all times, nor less than 95 percent saturation during late egg maturation and larval development of salmonids in areas that the Secretary determines are salmonid spawning or nursery areas important to the establishment or maintenance of the fishery resource. Not less than 6 mg/l or 70 percent saturation at all times in all other waters designated as a cold water fish habitat."
- C-22. Env-Ws 1703.19, entitled "Biological and Aquatic Community Integrity", states that
- "a. The surface waters shall support and maintain a balanced, integrated and adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region; and
 - b. Differences from naturally occurring conditions shall be limited to non-detrimental differences in community structure and function."
- C-23. RSA 485-A:8(II) provides that "Any stream temperature increase associated with the discharge of treated sewage, waste, or cooling water, water diversions, or releases shall not be such as to appreciably interfere with the uses assigned to this class."

- C-24. The Activity reviewed for this 401 Certification requires a federal license under the federal Power Act Section 23. The Applicant filed an application for a Non-Capacity Amendment of License to the Federal Energy Regulatory Commission (FERC) on February 27, 2006. FERC provided public notice for the Activity on March 30, 2006.
- C-25. The Applicant is responsible for the Activity, which includes construction and operation.
- C-26. The Applicant, under letter dated February 27, 2006, filed for an amendment of the 401 Certification issued by DES on December 9, 1991. The 401 Certification issued by DES on December 9, 1991 was for the installation and operation of two 14-MW units subsequently authorized under a 1992 FERC license amendment. Economic infeasibility precluded the Applicant from installing the two 14-MW units, which were intended to replace the existing four 2-MW units. The 401 Certification issued on December 9, 1991 stated that the 401 Certification is "void and a new 401 Certification must be applied for if additional structural and/or operational modifications are made at the Vernon Project".
- C-27. The Applicant submitted an Application for Review of Existing Water Quality Certification (Application) under letter dated February 27, 2006, which was received by DES on March 1, 2006. The Applicant also submitted a Computational Fluid Dynamic Flow modeling report, under letter dated May 3, 2006, received by DES on May 5, 2006, to address fish passage relative to the Activity. The Applicant submitted an Answer of TransCanada Hydro Northeast, Inc. to Motions to Intervene, Protest, Comments, and Recommendations on the Application for Non-Capacity Amendment of License for the Vernon Project No. 1904, dated May 15, 2006, received by DES on May 15, 2006. These documents and other correspondence from and with the Applicant are the basis for this 401 Certification review.
- C-28. The Vermont Yankee Station, a nuclear-powered facility owned by Entergy Nuclear Vermont Yankee, discharges cooling water into the Vernon impoundment. A National Pollutant Discharge Elimination System (NPDES) permit renewal (no. VT000264) for the facility was issued on July 11, 2001 by the Vermont Department of Environmental Conservation (VTDEC). Amended discharge permit number 3-1199 was issued on March 30, 2006 by VTDEC, which allowed for an increase in the temperature of the cooling water.
- C-29. The Turners Falls Hydroelectric Project (FERC No. 1889), owned and operated by Northeast Generating Company, creates an impoundment that extends to the downstream face of the Vernon Hydroelectric Project dam and powerhouse. The Turners impoundment is used for the Turners Falls Hydroelectric Project and the Northfield Hydroelectric Project, a pumped storage facility also owned and operated by Northeast Generating Company.

- C-30. A concern over the potential effect of the Activity on erosion in the Turners Falls impoundment has been expressed by Northeast Generating Company and the Connecticut River Watershed Council. The two specific areas of concern for erosion are immediately downstream from the Vernon Hydroelectric Project, including: (1) an instream island that currently supports a nesting pair of bald eagles, and (2) approximately 1,000 feet of the east river bank.

D. FINDINGS

- D-1. The Activity will result in a discharge to navigable waters
- D-2. The Activity may cause the permanent alteration of, or temporary impacts to, surface waters, particularly relative to dissolved oxygen and water temperature dynamics.
- D-3. The Activity requires water quality certification under Section 401 of the federal Clean Water Act.
- D-4. The Activity for this 401 Certification, proposed under letter dated February 27, 2006 constitutes "structural and/or operational modifications" referenced in the 401 Certification dated December 9, 1991. Thus, DES considers the application materials submitted under letter dated February 27, 2006 by the Applicant as an application for a new 401 Certification, rather than for an amended 401 Certification, as noted by the Applicant.
- D-5. The Activity, which is a component of the Vernon Hydroelectric Project as a whole, will cause hydrologic modifications to the Connecticut River, including changes in flow regime upstream and downstream from the Vernon Dam beyond that which occurs under un-regulated conditions.
- D-6. According to the Applicant, the upstream terminus of the Activity boundary is located approximately 26 miles upstream from the Vernon Dam. However, the upstream boundary may extend to the base of the Bellows Falls station during natural high-water conditions. The downstream terminus of the Activity boundary is the downstream side of the Vernon Dam, as the upstream terminus of the Turners Falls Hydroelectric Project impoundment at normal reservoir elevation abuts the downstream face of the Vernon Dam. The Turners Falls Hydroelectric Project is owned and operated by Northeast Generating Company (NGC).
- D-7. The Connecticut River in the area of the Activity is a surface water of the state under Env-Ws 1702.46.
- D-8. Class B New Hampshire and Vermont surface water quality standards (SWQS) apply to the Activity.
- D-9. According to DES, the releases of water by the Activity constitute a discharge

under Env-Ws 1702.18.

- D-10. The segments of the Connecticut River affected by the Activity consist of the Vernon impoundment, which extends from Vernon Dam to an area approximately 26 miles upstream from the dam, and immediately downstream from the Vernon Dam.
- D-11. The Connecticut River within the Activity area is directly regulated by the entirety of the Vernon Hydroelectric Project, including the Activity. In addition, the Turners Falls Hydroelectric Project and the Northfield Hydroelectric Project contribute to regulated flows in the Activity area. Unregulated, natural inflows also occur within the Activity area. The Activity will contribute to the regulation of the upstream Vernon impoundment and downstream tailwater. Further, the regulated river flows from the Vernon Hydroelectric Project as a whole will influence the river flows in downstream segments of the Connecticut River.
- D-12. The Vernon impoundment is created by the Vernon Hydroelectric Project, which reduces water velocities and increases hydraulic residence time of the Connecticut River in the area of the Activity beyond that which occurs under un-impounded conditions. These conditions may promote variable water quality conditions, particularly regarding water temperature and dissolved oxygen. In addition, these conditions can foster the development of aquatic plant communities, including phytoplankton, which can influence other water quality parameters such as pH and water clarity. Condition E-5 of this 401 Certification provides for dissolved oxygen and water temperature monitoring.
- D-13. The Activity will discharge directly into the upstream terminus of the Turners Falls impoundment at the downstream side of the Vernon powerhouse. The Applicant and NGC are responsible for developing and maintaining agreements relative to water rights and management while operating the Vernon and Turners Falls Hydroelectric Projects.
- D-14. An instream island that currently supports a nesting pair of bald eagles and approximately 1,000 feet of the east river bank of the Connecticut River immediately downstream from the Vernon Hydroelectric Project are susceptible to erosion as a result of unknown mechanisms
- a. Discharges from the Vernon Hydroelectric Project, water level fluctuations as a result of operation of the Turners Falls Hydroelectric Project, operation of the Northfield Hydroelectric Project, and natural processes may contribute to some level of bank erosion.
 - b. The Applicant, in its response to motions to intervene, included a circa 1907 (i.e., pre-Project construction) drawing of the Vernon Hydroelectric Project site that indicated the presence of a cove along the east bank, immediately downstream of the proposed Vernon project. This area is an area of concern by the interested parties. The cove is present today, as shown in an aerial photograph circa 1998, which indicates that the cove

was likely formed through natural geomorphologic processes under a range of river flows that are likely similar to or greater than the flows to be passed by the Activity.

- c. The Applicant, in its response to motions to intervene, surveyed the east bank between 1996 and 2005. The data from the surveys indicated that “[m]ajor changes to the bank have occurred from two causes: (1) high (flood) flows directed toward the bank from coarse gravel and bedrock deposits in the river channel below Vernon Dam that existed prior to the construction of Vernon; and (2) the 5.4-foot increase in the Turners Falls Pool that was implemented in the mid 1970’s to provide for the operation of Northfield that (a) created a new soil and water interface elevation on a previously stable but susceptible slope and (b) inundated the sand bar that protected and contributed to the stabilization of the toe of the bank during normal flow conditions.”

Continued monitoring following implementation of the Activity will provide for a pre- and post-Activity analysis of erosion potential immediately downstream from the Vernon Hydroelectric Project.

- D-15. The Applicant operates the Vernon Hydroelectric Project on a daily cycle, receiving inflow from upstream hydroelectric storage and un-regulated inflow. The Applicant stated that water level fluctuations greater than two feet occur infrequently in the Vernon impoundment, as the normal reservoir operating range is 218-220 ft above mean sea level.
- D-16. The Applicant, under the existing (1979) federal license, provides a year-round minimum flow release 1,250 cubic feet per second through the Vernon powerhouse for the protection of aquatic life immediately downstream from the powerhouse.
- D-17. Prior to the construction of dams in the Connecticut River, the Connecticut River naturally supported migratory fishes such as Atlantic salmon, American shad, sea lamprey, and blueback herring. Migratory fishes in the Connecticut River and its tributaries are managed by the New Hampshire Fish and Game Department (NH F&G), U.S. Fish and Wildlife Service (USFWS), and other fishery resources agencies through the Connecticut River Atlantic Salmon Commission (CRASC). CRASC is the decision-making entity relative to migratory fisheries management activities.
- D-18. The Activity may affect the efficiency and effectiveness of fish passage at the Vernon Hydroelectric Project. The *Strategic Plan for the Restoration of Atlantic Salmon to the Connecticut River* (Strategic Plan), revised July 1, 1998, was developed by CRASC. Consistency with the Strategic Plan or subsequent revisions approved by CRASC will satisfy the requirements of Env-Ws 1703.19, Biological and Aquatic Community Integrity relative to anadromous fish.
- D-19. The administration of this 401 Certification will require periodic review of

compliance data, review and approval of management plans, and other consultation with the Applicant and other parties. These actions will be undertaken jointly by the states of New Hampshire and Vermont, given the interstate nature of the waters affected by the Activity.

- D-20. Vermont's responsibilities in post-certification reviews, approvals and compliance monitoring are specified in the 401 Certification conditions. Reviews by VTDEC will address compliance with Vermont water quality standards only. New Hampshire's determination of compliance will include an incorporation of a review by the State of Vermont.
- D-21. In accordance with the provisions of the Compact described in C-13 of this 401 Certification, the elements of water quality requirements from both New Hampshire and Vermont are incorporated into this 401 Certification.
- D-22. Implementation of the Activity in accordance with the operations and monitoring plans described in E-3 and E-4 of this 401 Certification will satisfy the requirements of Env-Ws 1703.01 and Env-Ws 1703.19 relative to minimum flow requirements for designated uses, including aquatic life and recreation.
- D-23. The Activity may generate or cause the introduction of debris to surface waters from adjacent inundated lands, which may not meet the requirements of Env-Ws 1703.03(c)(1).
- D-24. Monitoring requirements are appropriate for the Activity during operational and non-operational periods to achieve the goals stated in Section 401 of the United States Clean Water Act (Title 33 U.S. Code, Chapter 26, Subchapter IV, Section 1341(d)).

E. WATER QUALITY CERTIFICATION CONDITIONS

- E-1. A copy of this 401 Certification shall be prominently posted within the Vernon Hydroelectric Project powerhouse within seven days of issuance of the amended FERC license.
- E-2. The Applicant shall allow DES to inspect the Activity at any time to monitor compliance with the conditions of this 401 Certification.
- E-3. The Applicant shall develop and file with DES an operations plan detailing impoundment water level fluctuations and the approach to complying with the minimum flow release described in D-16 of this 401 Certification. The plan shall include information on minimization, avoidance, and control of lag times and shall describe contingencies for periods of non-compliance with the minimum flow requirements. The plan shall also include procedures for reporting deviations from prescribed operating conditions. The plan shall be developed in consultation with DES, VTDEC, New Hampshire Fish and Game Department (NH F&G), and U.S. Fish and Wildlife Service (USFWS), with final

approval by DES. DES reserves the right of review and approval of any material changes made to the plan. Proposed modifications shall not be implemented until after approval by DES. Unless otherwise approved by DES, the Applicant shall submit the operations plan to DES, VTDEC, NHF&G and USFWS at least 180 days prior to the date the plan is to be implemented. The Applicant shall implement the operations plan not later than 90 days after issuance of the amended FERC license for the Activity, unless otherwise approved by DES. The Applicant shall notify DES not more than 24 hours after any substantial deviation from the approved operations plan and shall maintain a log of deviations, which shall be submitted annually to DES and VTDEC not later than January 31 of each year. Exceptions to the plan may be granted by DES, as necessary, in consultation with the Applicant, VTDEC, USFWS, and NH F&G.

- E-4. The Applicant shall develop a plan for continuous monitoring and reporting of flow releases through spillage and turbine discharge, impoundment levels, and inflows. The plan shall include procedures for reporting deviations from prescribed operating conditions. The Applicant shall maintain continuous records of flows and impoundment levels and provide such records on a regular basis, if requested by DES or VTDEC. The plan shall be developed in consultation with DES, VTDEC, USFWS, and NH F&G, with final approval resting with DES. The Applicant shall consult DES regarding any proposed material changes made to the plan.
- E-5. The Applicant shall develop a plan to monitor dissolved oxygen and water temperature in the Connecticut River to ensure the Activity complies with New Hampshire and Vermont Class B surface water quality standards. The plan shall be submitted to DES and VTDEC for review and approval, not less than 90 days before the new units are operated for normal power. The plan shall include a schedule for implementation. If violations of Class B surface water quality standards occur or persist, the Applicant shall revise the operations plan to include additional measures to meet dissolved oxygen standards. Any revised plan shall be submitted to DES and VTDEC, for review and approval, prior to implementation.
- E-6. The Applicant shall continue to monitor for erosion at the Vernon Hydroelectric Project. The Applicant shall submit an erosion monitoring plan to DES within 90 days of issuance of the amended license, for review and approval by DES. The plan shall include provisions for monitoring erosion consistent with the methods used from 1996-2005. The Applicant shall conduct monitoring according to the approved plan, and shall submit all monitoring results every other year, not later than December 31.
- E-7. The Applicant shall address downstream fish passage at the Vernon Hydroelectric Project in accordance with fish passage provisions described in the *Strategic Plan for the Restoration of Atlantic Salmon to the Connecticut River* (Strategic Plan), revised July 1, 1998, or subsequent revisions, as approved by CRASC. The Applicant shall consult DES regarding the

downstream fish passage studies, which were agreed to by the Applicant and U.S. Fish and Wildlife Service (USFWS).

- E-8. The Applicant shall provide DES and VTDEC with a copy of the turbine rating curves for all turbines at Vernon that accurately depict the relationship between flow and energy production. The rating curves shall be provided to DES and VTDEC within one year of the issuance of the amended license.
- E-9. The Applicant shall develop a plan for proper disposal of debris associated with the Activity, including trashrack debris. The plan shall be developed in consultation with DES and VTDEC, with final approval by DES.
- E-10. The Applicant shall file with DES and VTDEC, for prior review and approval, any proposals for maintenance or repair work relative to the Activity, including impoundment drawdowns below the normal operating range, necessary to facilitate repair/maintenance work, if said work may have a material adverse effect on water quality or cause less-than-full support of an existing use or a beneficial value or use of surface waters.
- E-11. The Applicant shall allow public access to the lands associated with the Activity for utilization of public resources, subject to reasonable safety and liability limitations. Such access should be prominently and permanently posted so that its availability is made known to the public. Any proposed limitations of access to State waters to be imposed by the Applicant shall first be subject to written approval by DES and VTDEC. The Applicant shall receive approval by VTDEC for access points and limitations that occur on Vermont jurisdictional lands. The Applicant shall receive approval by DES for access points and limitations that will occur on New Hampshire jurisdictional lands. In cases where an immediate threat to public safety exists, access may be restricted without prior approval; the Applicant shall so notify DES and VTDEC and shall file a request for approval, if the restriction is to be permanent or long-term, within 14 days of the restriction of access.
- E-12. The Applicant shall conduct the Activity consistent with the conditions of this 401 Certification.
 - a. The manner in which the Activity is conducted shall not contribute to or cause violations of NH or VT surface water quality standards. If it is determined that the manner of project operation contributes to violations of surface water quality standards, additional conditions may be imposed or conditions amended by DES, when authorized by law and after notice and opportunity for hearing.
 - b. The Applicant shall consult with DES and VTDEC regarding any proposed modifications to the Activity that may not be in accordance with this 401 Certification to determine whether this 401 Certification requires amendment or if a new 401 Certification is required for the Activity. Any amendment of this 401 Certification or the issuance of a new 401

Certification, determined appropriate by DES, shall be required prior to the implementation of any modifications to the Activity.

- E-13. The conditions of this 401 Certification may be amended and additional terms and conditions added as necessary to ensure compliance with New Hampshire and Vermont surface water quality standards during the life of the Activity, when authorized by law, and after notice and opportunity for hearing.
- E-14. DES may, at any time, request from FERC the reopening of the license to consider modifications to the license as necessary to ensure compliance with New Hampshire and Vermont surface water quality standards.
- E-15. Any change to the Activity that would have a significant or material effect on the findings, conclusions or conditions of this 401 Certification, must be submitted to DES for prior review and written approval where appropriate and authorized by law and only as related to the proposed change.

F. APPEAL

If you are aggrieved by this decision, you may appeal the decision to the Water Council. Any appeal must be filed within 30 days of the date of this decision, and must conform to the requirements of Env-Wc 200. Inquires regarding appeal procedures should be directed to Michael Sclafani, DES Council Appeals Clerk, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095; telephone 603-271-6072.

If you have questions regarding this Certification, please contact Paul Piszczek at (603) 271-2471.



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Director, DES Water Division

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Town of Hinsdale Planning Board