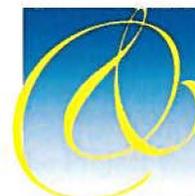


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**AMPERSAND
HYDRO**

717 Atlantic Avenue, Suite 1A
Boston, MA 02111
Tel: 416 643 6615
Fax: 416 642 6611

Debra A. Howland
Executive Director
New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, NH 03301-2429

March 16, 2016

Re: Application for a Class I Renewable Energy Source Certification for the Brooklyn Dam Hydroelectric Project

Dear Ms. Howland:

Attached please find Ampersand Brooklyn Dam Hydro LLC ("ABDH")'s application for Class I Renewable Energy Source Certification for the Brooklyn Dam Hydroelectric Project (the "Project").

The Project (FERC #: P-13806) is a 600 KW exempt from licensing, run-of-river hydro-electric project. The Project is located in Groveton, New Hampshire, and commenced operations on December 18, 2015. The historic use of the Brooklyn Dam Hydro Plant was to provide power to the adjacent paper mill. In the late 1960s, a significant flood event severely damaged the plant and caused plant operations to cease, forcing the mill to draw power from other sources. The paper mill does not exist anymore.

The Project was purchased by Ampersand Brooklyn Dam Hydro, LLC ("ABDH") on April 3, 2013 and includes a dam, a powerhouse, intake structures, abutment structures, applicable easements, water rights, and 3.25 acres of land. ABDH has installed two new 300 kW vertical Kaplan turbines, along with two new induction generators, gearboxes, trash racks, and headgates. The powerhouse substructure and tailrace has been modified to accommodate the new units.

A FERC exemption from licensing was issued August 14, 2015 (which is attached to this application), and the Project has been in continuous compliance with its requirements for exemption from licensing.

Please note that 5440 Hydro Inc. ("5440 Hydro") is the Exemptee and leases the Project from ABDH under a long-term Operating Lease Agreement. The Operating Lease Agreement between 5440 Hydro and ABDH is also attached with the application for your review. ABDH continues to be the upstream owner of the Project and is therefore the applicant for this application.

Since the Project only re-entered service in December 2015, there are no generation records for the period from 1986 through 2005. Similarly, there are no generation records or any generation for the period 2006 through December 17, 2015.

In addition to the Operating Lease Agreement and the FERC Exemption, we have attached the Water Quality Certificate issued by the New Hampshire Department of Environmental Services, Eversource's Interconnection Agreement and Authority to Interconnect, and the Progress Reports to FERC (demonstrating capital investments associated with the Project), in support of this application.

Per the application requirement, we would like to state that there are no prohibited relationships between the Applicant and other involved parties.

Please direct any comments or questions to the undersigned.

Sincerely,



Amit Pinjani
Asset Manager
Ampersand Brooklyn Dam Hydro LLC
717 Atlantic Avenue
Boston, MA 02111

3) Facility Information

Facility Name: Brooklyn Dam Hydro
Mailing Address: 717 Atlantic Avenue, Boston, MA 02111
Physical Address: Brooklyn St.
Town/City: Groveton State: MA Zip Code: 02111
If the facility does not have a physical address, provide the Latitude _____ & Longitude _____

Facility Owner: Ampersand Brooklyn Dam Hydro LLC
Telephone: 416-643 6621 Cell: _____
Email address: amit@ampersandenergy.com

If different from the owner:

Facility Operator: John Chessman
Telephone: 802-892-1166 Cell: _____
Email address: jchess103@gmail.com

4) Provide a general description of the renewable energy facility including size, a general summary of equipment and operation. *(The box provided will expand to accommodate the description.)*

Fuel Type: Water Gross Nameplate Capacity*: 600 kW
Initial Date of Commercial Operation: 12/18/2015
If different, the Original Date of Operation: _____

**The nameplate capacity should match the interconnection agreement and the GIS database. If it does not, please provide an explanation in the box below. (The box provided will expand to accommodate the explanation.)*

The Interconnection Agreement was signed on September 10, 2015. The project’s actual commercial operation date (COD) was December 18, 2015 which was the day the project received authorization from the interconnection utility Eversource to sync with the utility’s distribution system. The Interconnection Agreement as well as the utility’s letter to authorize to interconnect are attached to this application as Attachment 4.

*Provide the pertinent pages of the interconnection agreement as **Attachment 4** of the Application. If the interconnection agreement is a confidential document, there is no need to send more than the first few pages, the page that verifies the nameplate capacity of the facility and the signature pages. This will ensure that the applicant is not required to submit both original and redacted versions of the application.*

*If the facility is not required to have an interconnection agreement, provide explanation as to why an interconnection agreement is not required as **Attachment 4**.*

5) NEPOOL/GIS Asset ID and Facility Code

In order to qualify your facility's electrical production for RECs, you must register with the NEPOOL – GIS. Contact information for the GIS administrator follows:

James Webb

Registry Administrator, APX Environmental Markets

224 Airport Parkway, Suite 600, San Jose, CA 95110

Office: 408.517.2174

jwebb@apx.com

Mr. Webb will assist you in obtaining a GIS facility code and an ISO-New England asset ID number.

GIS Facility Code # NON54750 Asset ID # NON54750

If your facility is seeking Class I certification for the incremental new production of hydroelectric technologies to produce energy, proceed to question 6. Otherwise proceed to question 7.

6)

- 6.i) Demonstrate that the facility has had capital investments after January 1, 2006 resulting in an improvement of the facility's efficiency or an increase in the output of renewable energy pursuant to [RSA 362-F:4\(i\)](#).
- 6.ii) Include the Historical Generation Baseline as defined by [RSA 362-F:2, X \(a\)](#).

If your facility is seeking Class I certification for repowered Class IV sources, proceed to question 7. Otherwise proceed to question 8.

7)

- 7.i) Demonstrate that the facility has had new capital investments for the purpose of restoring unusable generation or adding to the existing capacity, including NHDES environmental permitting requirements for new plants pursuant to [RSA 362-F:4, I \(i\)](#).
- 7.ii) Provide documentation that 80 percent of the facility's tax basis in the resulting plant and equipment of the eligible generation capacity, including the NHDES permitting requirements for new plants, but exclusive of any tax basis in real property and intangible assets, is derived from the new capital investments pursuant to [RSA 362-F:4, I \(j\)](#).

If your facility is seeking Class I certification for formerly nonrenewable energy electric generation facilities, proceed to question 8. Otherwise, proceed to question 9.

8) Complete the following as Attachment 8:

- 8.i) Provide documentation that 80 percent of its tax basis in the resulting generation unit, including NHDES permitting requirements for new plants, but exclusive of any tax basis in real property and intangible assets, is derived from the new capital investments pursuant to [Puc 2505.07](#).

If your facility is seeking Class IV certification for a hydroelectric facility with a nameplate capacity of one megawatt or greater, proceed to question 9. Otherwise, proceed to question 10.

9) Complete the following as **Attachment 9**:

9.i) Provide proof that the facility has installed upstream and downstream diadromous fish passages that have been approved under the terms of the facility's license or exemption from the Federal Energy Regulatory Commission pursuant to [RSA 362-F:4, IV \(a\)](#).

Provide documentation that, when required, the facility has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects pursuant to [RSA 362-](#)

9.ii) [F:4, IV \(a\)](#).

If your facility is located in a control area adjacent to the New England control area, complete question 10.

10) Provide the following as **Attachment 10**.

10.i) Submit proof that the energy is delivered within the New England control area and such delivery is verified as required in [Puc 2504.01\(a\)\(2\) a. to e.](#)

If your facility is a customer-sited source, proceed to question 11. Pursuant to RSA 362-F:2, V, a customer-sited source means a source that is interconnected on the end-use customer's side of the retail electricity meter in such a manner that it displaces all or part of the metered consumption of the end-use customer.

11) If the facility is a customer-sited source you must retain the services of an independent monitor directly, or if participating in an aggregation pursuant to Puc 2506, complete the following. Note that the aggregator must work with an independent monitor responsible for the verification of the production of energy from the customer-sited source.

Independent Monitor's Name: _____

Town/City: _____ State: _____ Zip Code: _____

Telephone: _____ Cell: _____

Email address: _____

(A [list](#) of independent monitors is available at:

http://www.puc.nh.gov/Sustainable%20Energy/Renewable_Energy_Source_Eligibility.htm.)

12) Provide all necessary regulatory approvals, including any reviews, approvals or permits required by NHDES or the environmental protection agency in the facility's state as **Attachment 12**.

13) Provide a general description of how the generation facility is connected to the regional power pool via the local electric distribution utility. Please note that this information will be posted as public record. (*The box provided will expand to accommodate the description.*)

The generation facility is connected to Eversource's distribution system through Pole 384/15 at 34.5kV, three phase, sixty hertz. Further details are provided in the attached Interconnection Agreement.

14) If applicable, provide verification of any certifications that have been received for this facility as **Attachment 14**. N/A

15) Check “Yes” if the facility has been certified under another non-federal jurisdiction’s RPS. If “yes”, provide attachments from each of the states where certification has been received. Label as **Attachment 15**.

| | | | | | | | | | | |
|--|--|-------------------------------------|--------------------------|--------------|--------------------------|-------|--------------------------|--|--------------------------|--|
| yes | no | | | | | | | | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | | | | | |
| Massachusetts | <input type="checkbox"/> | Connecticut | <input type="checkbox"/> | Rhode Island | <input type="checkbox"/> | Maine | <input type="checkbox"/> | All certifications have been attached. | <input type="checkbox"/> | |
| <input type="checkbox"/> | All regulatory approvals related to REC requirements, including all reviews, approvals or DES permits are attached. | | | | | | | | | |
| 16) | 16) The facility’s output is reported to and verified by ISO-NE. | yes | no | | | | | | | |
| | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | | | |
| 17) The project described in this application will meet the metering requirements of Puc 2506 including: | | | | | | | | | | |
| I agree | Electricity generation in megawatt hours shall be reported to the GIS quarterly with a statement that the submission is accurate by the owner of the source, the IM, or a designated representative. | | | | | | | | | |
| <input checked="" type="checkbox"/> | | | | | | | | | | |
| I agree | A revenue quality meter is used to measure the electricity generated. | | | | | | | | | |
| <input checked="" type="checkbox"/> | | | | | | | | | | |
| N/A | The facility owner has certified to the IM that the meter operates according to manufacturing standards. | | | | | | | | | |
| I agree | The meter shall be maintained according to the manufacturer’s recommendations. | | | | | | | | | |
| <input checked="" type="checkbox"/> | | | | | | | | | | |
| The Undersigned declares under penalty of perjury that the information provided on this application is accurate. | | | | | | | | | | |
| Amit Pinjani |  | | | | | | | March 16, 2016 | | |
| Typed signature required | | | | | | | | | | |
| Contact Barbara Bernstein at Barbara.bernstein@puc.nh.gov or 603-271-6011 with questions and comments. | | | | | | | | | | |

| Application Checklist: | | check |
|-------------------------------|--|--|
| 1-3 | All general and facility information has been provided in numbers 1), 2) and 3). | OK |
| 4 | The nameplate capacity matches the interconnection agreement and the GIS database. | OK |
| 4 | Pertinent pages of the interconnection agreement have been provided as Attachment 4. | OK |
| 5 | A GIS Asset ID and facility code has been obtained and provided on the application. | OK |
| 6 | If your facility is seeking Class I certification for the incremental new production of hydroelectric technologies to produce energy, Attachment 6 | OK. Explained in Cover Letter. Also see Attachments 6 demonstrating capital investments. |
| 7 | If your facility is seeking Class I certification for repowered Class III or IV sources, Attachment 7. | N/A |
| 8 | If your facility is seeking Class I certification for formerly nonrenewable energy electric generation facilities, Attachment 8. | N/A |
| 9 | If your facility is seeking Class IV certification for the electric production of hydroelectric technologies with a nameplate capacity of one megawatt or greater, Attachment 9. | N/A |
| 10 | If your facility is located in a control area <u>adjacent</u> to the New England control area, Attachment 10. | N/A |
| 11 | If the facility is a customer-sited source you have retained the services of an independent monitor and noted the independent monitor on the application. | N/A |
| 12 | All necessary regulatory approvals, including any reviews, approvals or permits required by NHDES or the environmental protection agency in the facility's state have been provided as Attachment 12. | OK |
| 13 | A <u>general</u> description of how the generation facility is connected to the regional power pool via the local electric distribution utility has been provided. | OK |
| 14 | If applicable, provide verification of any certifications that have been received for this facility as Attachment 14. | N/A |
| 15 | If applicable, verification of all renewable portfolio standard program certifications that have been received for this facility in other states, provided as Attachment 15. | N/A |
| | If necessary, other pertinent information that will assist in classification of the facility provided as Attachment 16. | N/A |
| 16 | A statement that there are no prohibited relationships between the Applicant and other involved parties has been provided. | OK. Added in Cover Letter. |
| 17 | The affidavit by the owner attesting to the accuracy of the contents of the application has been completed. | OK. In the Application Form. |

Note: Attachment numbers are matched with the number on the application. There are no attachments numbered 1, 2, 3, 5, 11, 13, 16, or 17. A separate attachment for the affidavit will be accepted.

OPERATING LEASE AGREEMENT

THIS OPERATING LEASE AGREEMENT ("Lease") is entered into on this 15th day of November, 2013, by and between **AMPERSAND BROOKLYN DAM HYDRO LLC**, a New Hampshire limited liability, with its principal offices at 717 Atlantic Avenue, Boston, MA 02111 ("Lessor") and **5440 HYDRO INC.**, incorporated under the laws of the Commonwealth of Massachusetts, with its principal offices at 717 Atlantic Avenue, Boston, MA 02111 ("Lessee").

RECITALS

WHEREAS, on January 25, 2013, Lessor entered into a certain Purchase and Sale Agreement with Groveton Acquisition, LLC, a true and correct copy of which, together with any and all amendments thereto, is annexed hereto as Exhibit A (the "Purchase and Sale Agreement"), whereby Lessor agreed to purchase all right, title and interest in and to the land, improvements and fixtures comprising that certain dam and dam site known as the Brooklyn Dam situated on the Upper Ammonoosuc River by the former Wausau paper mill, as more particularly described in Appendix A of the Purchase and Sale Agreement (collectively, the "Real Estate") including: (a) the bed of the River, (b) the footbridge just south of the Brooklyn Dam that crosses the River (the "Footbridge"), (c) that certain building on the Brooklyn Street side of the Brooklyn Dam known as the "Power House", (d) certain land on the Brooklyn Street side of the River extending from a point approximately forty five (45) feet downstream of the Footbridge to a point approximately 450 feet upstream from the Power House, (e) the riverbank abutment structure on the Mill Site side of the River extending from the downstream side of the Footbridge to the downstream side of the penstock platform, the metal sheet from the downstream side of the penstock valve structure to the upstream side of the fire protection structure, and rights of way to the now PSNH 34.5 kv power line and poles, and (f) any other real estate rights and privileges and appurtenant water rights thereto, including river, water and flowage rights associated with the Brooklyn Dam pursuant to its historic use for hydroelectric generation.

NOW, THEREFORE, in consideration of the mutual promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby mutually acknowledged, the parties hereto agree as follows:

1. In consideration One Dollar (\$1.00), Lessor hereby leases to Lessee all right, title and interest of Lessor in and to the Project.
2. This Agreement shall be deemed effective upon December 1, 2013 (the "Effective Date") and have an initial term of five (5) years.
3. This Agreement will be automatically extended by five (5) years at the end of the initial term unless terminated by either party at any time upon written notice provided by the terminating party to the other party 30 days prior to termination.

IN WITNESS WHEREOF, the parties have caused this Operating Lease Agreement to be duly executed and delivered as of the day and year first above written.

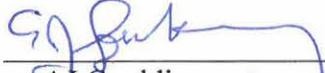
LESSOR:

AMPERSAND BROOKLYN DAM HYDRO LLC

By:  _____
Name: Lutz Loegters
Title: Project Manager

LESSEE:

5440 HYDRO INC.

By:  _____
Name: AJ Goulding
Title: Managing Member



780 North Commercial Street
Manchester, NH 03101

December 18, 2015

Ampersand Brooklyn Dam Hydro, LLC
Mr. Lutz Loegters
Manager
717 Atlantic Avenue, Suite 1A
Boston, MA 02111

Subject: Eversource Energy, Authorization To Interconnect

Dear Lutz,

In accordance with Article 2. Interconnection and Protection Requirements, paragraph 2, of the Generator Interconnection Agreement, dated September 10, 2015, by and between Ampersand Brooklyn Dam Hydro, LLC and Eversource Energy, Ampersand Brooklyn Dam Hydro, LLC has met all Eversource Energy "technical" requirements for parallel operation with the Eversource Energy electric distribution system - you are hereby authorized to interconnect.

- a. The conditions for initial parallel operation of the Facility set forth in Attachment A, Customer Generation Protection Interconnection Report – 5440 Hydro Inc., 600 kW Induction Hydro Generator (#1113), dated July 7, 2015, have been met - COMPLETE
- b. Commissioning and testing of the Facility has been completed in accordance with Attachment A and to the satisfaction of Eversource Energy - COMPLETE
- c. The Interconnector has paid Eversource Energy all funds due pursuant to Article 3 of the Agreement - PENDING
- d. Interconnector has complied with the insurance requirements of Article 7 of the Agreement - COMPLETE
- e. Interconnector has provided Eversource Energy a description of the Facility that incorporates all final design changes, including all design changes made during construction - COMPLETE
- f. Eversource Energy has provided formal written authorization stating that operation of the Facility in parallel with the Eversource Energy System is authorized by Eversource Energy - COMPLETE

Please contact me (603-634-2920) should you have any questions or require additional information.

Sincerely,

Michael D. Motta

Michael D. Motta
Senior Engineer, Eversource New Hampshire Distributed Generation

GENERATOR INTERCONNECTION AGREEMENT

This INTERCONNECTION AGREEMENT, dated September 10, 2015 is entered into by and between Ampersand Brooklyn Dam Hydro, LLC, (hereinafter referred to as the "Interconnector"), and Public Service Company of New Hampshire, dba Eversource Energy, a New Hampshire corporation having its principal place of business in Manchester, New Hampshire (hereinafter referred to as "Eversource").

WHEREAS, Interconnector desires to interconnect its 600 kW hydro-electric generating facility as described in Attachment A hereto (the "Facility"), located in Northumberland, New Hampshire, with the electric system of Eversource in accordance with applicable New Hampshire Public Utilities Commission ("NHPUC") Orders and applicable laws; and

WHEREAS, Interconnector desires to, and Eversource agrees to, provide for the interconnection of the Facility with the electric system of Eversource, its successors and permitted assigns; and

WHEREAS, it is necessary that certain agreements be made prior to the interconnection of the Facility to ensure the safety, reliability and integrity of Eversource's electric system and the operation of the Facility;

NOW, THEREFORE, in consideration of the mutual promises set forth herein the parties do hereby agree as follows:

Article 1. Interconnection and Voltage Characteristics.

The interconnection point shall be that point at which the Facility interconnects with the 34.5 kV electric system of Eversource, as more fully described in Attachment A. Under this Agreement, the Interconnector shall receive and pay for the services necessary for the purpose of connecting the Facility with the Eversource electrical distribution system. The execution of this Agreement does not constitute a request for, or the provision of, transmission or distribution service. Interconnector is responsible for (a) all arrangements to effect any deliveries of electric energy from the Facility in accordance with the appropriate retail or FERC-jurisdictional tariffs and (b) arranging for its purchase of retail power (such as back-up or stand-by power). This Agreement does not cover sales

of power, capacity, energy or market products generated from the Facility, nor does it provide any assurance that the Facility is eligible for net metering.

Unless Eversource converts its interconnection circuit, all electric energy delivered to Eversource's system from the Facility shall be 34.5 kV, three phase, sixty hertz. If the Eversource circuit is converted to a different voltage in the future, the Interconnector shall be responsible for all Facility interconnection modifications necessitated by the conversion.

Article 2. Interconnection and Protection Requirements.

Interconnector shall install or provide for the installation of all interconnection, protection, and control equipment as specified in the Interconnection Report ("Report") dated July 7, 2015, attached as Attachment A hereto, and incorporated herein by reference thereto, to ensure the safe and reliable operation of the Facility in parallel with the Eversource system. The Report may be modified from time to time in accordance with this Article 2 as set forth below, and to account for any modifications to the Facility as set forth in Article 5 below. The Interconnector will be responsible for all study costs associated with the development of the Report, and those costs associated with the equipment and its installation, required by the Report as set forth in Article 3 below. Metering of the output from the Facility shall be conducted pursuant to the terms of the Report.

The Interconnector may not operate the Facility in parallel with the Eversource System until:

- (a) the conditions for initial parallel operation of the Facility set forth in the Report have been met;
- (b) commissioning and testing of the Facility has been completed in accordance with the Report and to the satisfaction of Eversource;
- (c) the Interconnector has paid Eversource all funds due pursuant to Article 3 of this Agreement;
- (d) Interconnector has complied with the insurance requirements of Article 7;
- (e) Interconnector has provided Eversource a description of the Facility that incorporates all final design changes, including all design changes made during construction; and
- (f) Eversource has provided formal written authorization stating that operation of the Facility in parallel with the Eversource System is authorized by Eversource.

The Interconnector shall obtain each consent, approval, authorization, order or acceptance from FERC and/or ISO-NE necessary for the Interconnector or any entity that, directly or

indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control with the Interconnector (each, an "*Affiliate*") to sell any power, capacity, energy or market products from the Facility into the wholesale power market prior to making any such wholesale sales. The Interconnector shall indemnify, defend and hold harmless Eversource, its trustees, directors, officers, employees, agents and affiliates from any costs, damages, fines or penalties, including reasonable attorneys' fees, directly resulting from Interconnector's or its Affiliate's non-compliance with any provision of this Article 2; provided, however, that such indemnification obligation shall be subject to the limitation of liability set forth in Article 7.

Up to the interconnection point, unless otherwise provided for in the Report, all equipment shall be the sole property of Interconnector. Interconnector shall have sole responsibility for the operation, maintenance, replacement, and repair of the Facility, including the interconnection equipment owned by the Interconnector.

The Interconnection Report is subject to, and is based upon, current Eversource standards, as may be amended from time to time, regarding protection and control equipment requirements sufficient to ensure the safe and reliable operation of the Eversource electric distribution system. Interconnector hereby acknowledges that such Eversource standards are periodically reviewed and modified pursuant to standard utility practice, and that Interconnector is responsible for compliance with such standards, at its sole cost, as these standards may be modified from time to time. Additionally, the costs of any such review of the Interconnection Report in Attachment A performed by Eversource will be the responsibility of the Interconnector. Interconnector is responsible for any and all additional costs to ensure that all relevant protection and control equipment, software, hardware, and their capabilities meet then current Eversource standards for interconnection of generating facilities to the Eversource electric distribution system. Eversource will notify Interconnector if upgrades or changes to Interconnector's protection and control equipment are necessary by issuing a new or updated Interconnection Report. Within a mutually agreeable period following the issuance of a new or updated Interconnection Report the Interconnector shall modify the Facility, at the Interconnectors sole expense, to meet the revised requirements thereof. Any disputes will be addressed in accordance with Article 9 of this Agreement.

Prior to the interconnection to Eversource's system under this agreement, Interconnector shall have tested, and every twelve months thereafter, Interconnector shall test, or cause to be tested, all protection devices including verification of calibration and tripping functions; and Interconnector shall provide Eversource with a copy of the tests and results. The Interconnector shall ensure that any such test is performed by an individual or company that Eversource has authorized to perform the testing function.

If either party reasonably determines that the operation or use of any portion of the protection system will or may not perform its protective function, Interconnector shall immediately open the interconnection between Eversource's system and the Facility. Interconnector shall promptly notify Eversource of this action and the reason for this action. The interconnection shall remain open until Interconnector has satisfactorily cured the defect. Any repair or replacement of Interconnector's equipment shall be at no cost to Eversource, except Eversource shall be responsible for any loss or damage requiring repair or replacement of all or a portion of the Interconnector's equipment as a result of the negligence or misconduct of Eversource, its agents or employees.

System Metering

The facility will be equipped a 4 channel (4X Configuration) recording meter. The new meter will capture Watt-hours delivered, lagging Var-hours, Watt-hours received, and leading Var-hours.

A customer owned, dedicated phone line to the meter is required to be operational at all time.

All costs of metering equipment and installation shall be borne by the Interconnector. Eversource shall retain ownership and maintenance responsibilities for the metering equipment. The metering equipment must consist of Eversource approved components.

The customer shall allow Eversource reasonable access to the metering for, but not limited to, meter reading, meter testing, and meter maintenance.

Delivery Point

For the purpose of establishing ownership, operation and maintenance responsibilities, the location of facility energy delivery to Eversource (the "Delivery Point") must be defined. At this site, the Delivery Point is defined in Attachment A.

Description of Responsibilities

Eversource will own and maintain all equipment up to the Delivery Point. Interconnector will own and maintain all equipment from the Delivery Point into and throughout the Facility. However, Eversource will own the metering equipment, to be maintained by Eversource at the Interconnector's expense.

Article 3. General Payment Terms.

Interconnection Costs. The Interconnector is responsible for paying all costs associated with Interconnection of the Facility incurred by Eversource, including (a) testing costs, (b) costs associated with installing, testing and maintaining the communications infrastructure necessary to provide protection and/or monitoring of the Facility, (c) construction, modification and Upgrade costs (as defined in the paragraph below) necessary to accommodate the Interconnection, and (d) any ongoing maintenance costs and other charges deemed necessary by Eversource to maintain the Interconnection (all such costs described in this sentence, the "Interconnection Costs").

Distribution Upgrades. Eversource shall design, procure, construct, install, and own the distribution system upgrades described in the Report (the "Upgrade(s)"). The actual cost of the Upgrades, including overheads, shall be the sole responsibility of the Interconnector.

Initial Cost Estimate. The Report contains a good-faith estimate of the initial Interconnection Costs (the "Initial Cost Estimate").

Billing and Payment Procedures for Interconnection Costs. The Interconnector shall pay Eversource the amount set forth in the Initial Cost Estimate (the "Initial Payment") within thirty (30) days of the Effective Date, subject to extension by mutual agreement of the Parties.

Eversource will not incur Interconnection Costs prior to receipt of the Initial Payment. Actual incurred Interconnection Costs may vary from those costs included in (a) the Report, or (b) the Initial Cost Estimate. Eversource shall invoice the Interconnector for all Interconnection Costs as such costs are incurred to the extent that they exceed the Initial Payment, and the Interconnector shall pay each such invoice within thirty (30) days of receipt, or as otherwise agreed to by the Parties. Within ninety (90) days following the date on which Eversource determines that Eversource has received all of the necessary information Eversource has requested from its employees, agents, contractors and/or subcontractors working on, or providing services in connection with, the design and construction of the Interconnection, Eversource shall provide the Interconnector with an accounting report detailing any Underpayment (as such term is defined below) or Overpayment (as such term is defined below) made by the Interconnector with respect to the Initial Payment (the "True-up Report"). To the extent that the actual Interconnection Costs accrued up to the date of the Initial Interconnection exceed the Initial Payment (an "Underpayment"), Eversource shall invoice the Interconnector for an amount equal to the Underpayment and the Interconnector shall pay such amount to Eversource within thirty (30) days of such invoice. To the extent that the Initial Payment exceeds the actual Interconnection Costs accrued up to the date of the Initial Interconnection (an "Overpayment"), Eversource shall refund to the Interconnector an amount equal to the Overpayment within thirty (30) days of the provision of the True-Up Report. Any and all Interconnection Costs incurred by Eversource after the date of the True-up Report shall be billed in accordance with this provision.

Taxes. The Parties shall comply with all applicable federal and state tax laws.

Article 4. Right of Access.

Eversource Right to Access. The Interconnector shall allow Eversource access to Eversource equipment and Eversource facilities located on the Facility's premises (the "***Eversource Property***"). To the extent that the Interconnector does not own all or part of the real property on which Eversource is required to locate Eversource Property in order to serve the Facility, the Interconnector shall procure and provide to Eversource all necessary rights, including easements, for access to Eversource Property. Additionally, Eversource shall have the right to enter the property of Interconnector at mutually agreed upon reasonable times and shall be provided reasonable access to

Interconnector's metering, protection, control, and interconnection equipment to review for compliance with this Agreement. Upon request, Eversource shall provide Interconnector with a copy of any notes, reports or other documents made relating to any such inspection or review.

Isolation Device. Eversource shall have access to the Isolation Device (as described in the Report) of the Facility at all times. Interconnector is responsible for obtaining any and all property rights, including easements, which will permit Eversource access to such Isolation Device.

Right to Review Information. Eversource shall have the right to review and obtain copies of the Interconnector's operations and maintenance records, logs, or other information such as unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to the Facility or its Interconnection. Eversource shall treat such information as confidential and shall use such information solely for the purposes of determining compliance with the operating requirements of Eversource.

Article 5. Modification of Facility.

A description of the Facility as studied is contained in the Report. Any changes to the design of the Facility as it is described and specified in the Report with respect to such Facility must be approved by Eversource in writing prior to the implementation of such design changes. Only design changes approved in accordance with this Article 5 shall be implemented. If Interconnector plans any modifications to its Facility as described in Attachment A, which modifications would reasonably be expected to affect its interconnection with the Eversource System, Interconnector shall give Eversource ninety (90) day prior written notice of its intentions. Eversource will review the modifications at the Interconnectors expense and provide a written notice of approval or notification that the modification will require revised protection and control equipment. The cost of any and all upgrades to either the Facility interconnection equipment or the Eversource electric distribution system required to permit the Facility modification shall be the responsibility of the Interconnector.

Article 6. Term of Agreement.

This Agreement shall become effective between the parties on the date of execution of this agreement. This Agreement shall remain in full force and effect subject to the suspension and termination rights contained in this Article 6.

Interconnector may terminate this Agreement by giving Eversource not less than sixty (60) days prior written notice of its intention to terminate. Eversource may terminate the interconnection under this Agreement by giving not less than sixty (60) days prior written notice should Interconnector fail to substantially perform with the interconnection, metering and other safety provisions of this Agreement, and such failure continues for more than sixty (60) days from date of notice without cure. The Eversource notice shall state with specificity the facts constituting the alleged failure to perform by Interconnector. If the parties are unable to reach agreement within 60 days on a cure for the failure to perform, either party may elect to submit the dispute to the NHPUC for resolution.

If changes in applicable federal or state statutes, regulations or orders; or changes in applicable ISO or NEPOOL requirements occur which materially affect this Agreement, the parties shall negotiate in good faith to modify this Agreement to accommodate such changes. If the parties are unable to reach agreement within 60 days, either party may elect to submit the dispute to the NHPUC for resolution.

Eversource may also terminate its obligation contained in this Agreement if applicable laws, regulations and orders mandating interconnections from qualifying facilities are repealed, or declared invalid by a Court or Regulatory Agency, and no revised law is enacted providing for such interconnection on a similar basis.

Eversource may terminate this Agreement if the Interconnector either: (1) fails to energize the Facility within 12 months of the effective date; or, (2) permanently abandons the Facility. Failure to operate the Facility for any consecutive 12 month period after the effective date of this Agreement shall constitute permanent abandonment unless otherwise agreed to in writing between the Parties.

After termination of this Agreement, both parties shall be discharged from all further obligations under the terms of this Agreement, excepting any liability which may have been incurred before the date of such termination. Any reasonable costs incurred by Eversource to physically disconnect the Facility as a result of the termination of this Agreement shall be paid by the Interconnector.

Article 7. Insurance, Performance Assurance, Indemnification & Limitation of Liability.

A. Insurance Requirements.

General Liability. In connection with the Interconnector's performance of its duties and obligations under this Agreement, the Interconnector shall maintain, during the term of this Agreement, general liability insurance with a combined single limit of not less than:

One million dollars (\$1,000,000) per occurrence and in the aggregate for bodily injury and/or property damage claims where the gross nameplate rating of the Facility is less than or equal to an aggregate of 500 KW;

Three million dollars (\$3,000,000) per occurrence and in the aggregate for bodily injury and/or property damage claims where the gross nameplate rating of the Facility is greater than 500 KW.

Insurer Requirements and Endorsements. All insurance required pursuant to this Article 7 A. shall be carried by insurers qualified to underwrite insurance in New Hampshire with an A.M. Best rating of A- or better. In addition, all insurance shall: (a) include Eversource as an additional insured; (b) contain a severability of interest clause or cross-liability clause unless the Interconnector is a residential customer; (c) provide that Eversource shall not be liable to the insurance carrier with respect to the payment of premium for such insurance; and (d) provide for written notice to Eversource thirty (30) days prior to cancellation, termination, or material change of such insurance.

Evidence of Insurance. If insurance similar to the insurance provided by this endorsement is held by the additional insured noted above, the insurance provided by this endorsement is primary to that other insurance, and that other insurance shall not contribute to amounts payable under the insurance provided by this endorsement.

Prior to Eversource commencing any work on system modifications, the Interconnector shall have its insurer provide to Eversource certificates of insurance evidencing the insurance coverage required pursuant to this Article 7 A. Such certificates shall clearly indicate that such insurance policy is written on an "occurrence made" basis. Eversource may, at its discretion, require the Interconnector to maintain tail coverage with respect to any policy written on a "claims-made" basis for a period of three years after expiration or termination of such policy.

All insurance certificates, statements of self-insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to Eversource.

B. Indemnification.

Each party will be responsible for its equipment and the operation thereof and will indemnify and save the other harmless from any and all loss by reason of property damage, bodily injury, including death resulting therefrom suffered by any person or persons including the parties hereto, employees thereof or members of the public, (and all expenses in connection therewith, including attorney's fees) whether arising in contract, warranty, tort (including negligence), strict liability or otherwise, caused by or sustained on, or alleged to be caused by or sustained on, equipment or property, or the operation or use thereof, owned or controlled by such party, except that each party shall be solely responsible for and shall bear all costs of its negligence, and willful misconduct, and claims by its own employees or contractors growing out of any workers' compensation law. The foregoing paragraph shall survive the termination of this Agreement and such termination will not extinguish any liabilities or obligations in respect of reimbursements under this paragraph, incurred up to the time of termination.

Survival of Indemnification. The indemnification obligations of each Party set forth in this Article 7 B. shall continue in full force and effect regardless of whether this Agreement has expired or been terminated, defaulted or cancelled and shall not be limited in any way by any limitation on insurance.

C. Limitation of Liability.

Except with respect to a Party's fraud or willful misconduct, and except with respect to damages sought by a third party in connection with a third party claim: (a) neither Party shall be liable to the other Party, for any damages other than direct damages; and (b) each Party agrees that it is not entitled to recover and agrees to waive any claim with respect to, and will not seek, consequential, punitive or any other special damages as to any matter under, relating to, arising from or connected to this Agreement.

Article 8. Force Majeure.

Neither party shall be considered to be in default hereunder and shall be excused from performance hereunder if and to the extent that it shall be prevented from doing so by storm, flood, lightning, earthquake, explosion, equipment failure, civil disturbance, labor dispute, act of God or the public enemy, action of a court or public authority, withdrawal of equipment from operation for necessary maintenance and repair, or any other cause beyond the reasonable control of either party and not due to the fault or negligence of the party claiming force majeure, provided that the party claiming excuse from performance uses its best efforts to remedy its inability to perform.

Article 9. Dispute Resolution and Voluntary Arbitration.

In the event of any dispute, disagreement, or claim (except for disputes referred to the NHPUC under Article 6 of this Agreement) arising out of or concerning this Agreement, the Party that believes there is such a dispute, disagreement, or claim will give written notice to the other Party of such dispute, disagreement, or claim. The affected Parties shall negotiate in good faith to resolve such dispute, disagreement, or claim. If such negotiations have not resulted in resolution of such dispute to the satisfaction of the affected Parties within twenty (20) working days after notice of the dispute has been given, then an affected Party may submit such dispute, disagreement, or claim arising out of or concerning this Agreement to the NH PUC for resolution in accordance with Order 14,797 in DE 80-246. Upon mutual agreement of the Parties, a dispute may be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such claim or dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Agreement.

The arbitration proceeding shall be conducted by a single arbitrator, appointed by mutual agreement of the affected Parties, in Manchester, New Hampshire, under the Commercial Arbitration Rules of the American Arbitration Association in effect at the time a demand for arbitration under such

rules was made. In the event that the affected Parties fail to agree upon a single arbitrator, each shall select one arbitrator, and the arbitrators so selected shall, within twenty (20) days of being selected, mutually select a single arbitrator to govern the arbitration. A decision and award of the arbitrator made under the Rules and within the scope of his or her jurisdiction shall be exclusive, final, and binding on all Parties, their successors, and assigns. The costs and expenses of the arbitration shall be allocated equitably amongst the affected Parties, as determined by the arbitrator(s). Judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction. Each Party hereby consents and submits to the jurisdiction of the federal and state courts in the State of New Hampshire for the purpose of confirming any such award and entering judgment thereon.

Article 10. Operating Requirements.

General Operating Requirements. The Interconnector shall construct, interconnect, operate, and maintain the Facility and all accompanying and necessary facilities in accordance with (a) all applicable laws and requirements and, "Good Utility Practice" (as defined in Section I of the ISO New England Inc., Transmission, Markets and Services Tariff, FERC Electric Tariff No. 3); and (b) ISO-NE operating requirements in effect at the time of construction and other applicable national and state codes and standards. Following the initial Interconnection of the Facility, the Interconnector shall comply with all special operating requirements set forth in the Report. In the event that Eversource believes that the cause of any problem to Eversource originates from the Facility, Eversource has the right to install monitoring equipment at a mutually agreed upon location to determine the exact cause of the problem. The cost of such monitoring equipment shall be borne by Eversource, unless such problem or problems are demonstrated to be caused by the Facility or if the test was performed at the request of the Interconnector in which case the costs of the monitoring equipment shall be borne by the Interconnector. If the operation of the Facility interferes with Eversource's or its customers' operations, the Interconnector must immediately take corrective action to stop such interference and shall not operate the Facility until such time as such interference is stopped. If the Interconnector fails to take immediate corrective action pursuant to the preceding sentence, then Eversource may disconnect the Facility in accord with Good Utility Practice.

No Adverse Effects: Non-interference. Eversource shall notify the Interconnector if Eversource has evidence that the operation of the Facility could cause disruption or deterioration of service to other customers served from Eversource's system or if operation of the Facility could cause damage to the Eversource system or other affected systems. (For example, deterioration of service could be caused by, among other things, harmonic injection in excess of IEEE STD 519, as well as voltage fluctuations caused by large step changes in loading at the Facility.) The Interconnector shall cease operation of the Facility until such time as the Facility can operate without causing disruption or deterioration of service to other customers served from the Eversource system or causing damage to the Eversource system or other affected systems. Each Party shall promptly notify the other Party in writing of any condition or occurrence relating to such

Party's equipment or facilities which, in such Party's reasonable judgment, could adversely affect the operation of the other Party's equipment or facilities.

Eversource shall operate its system in such a manner so as to not unreasonably interfere with the operation of the Facility. The Interconnector shall protect itself from normal disturbances propagating through the Eversource system in accordance with Good Utility Practice. Examples of such normal disturbances include single-phasing events, voltage sags from remote faults on Eversource system, and outages on the Eversource system.

Safe Operations and Maintenance. The Interconnector shall operate, maintain, repair, and inspect, and shall be fully responsible for, the Facility or facilities that it now or hereafter may own unless otherwise specified in this Agreement or the Report. Each Party shall be responsible for the maintenance, repair and condition of its respective lines and appurtenances on such Party's respective side of the interconnection point. Eversource and the Interconnector shall each provide equipment on its respective side of the interconnection point that adequately protects the Eversource system, personnel, and other persons from damage and injury. If Eversource has constructed or owns equipment or facilities, including but not limited to Upgrades, that were required solely as a result of the Interconnection, then, unless otherwise documented in the Report, the costs associated with the operation, maintenance, repair and replacement of such equipment or facilities shall be the ongoing responsibility of the Interconnector and the Interconnector shall reimburse Eversource such costs.

Ongoing Maintenance; Testing of the Facility. The Parties hereby acknowledge and agree that maintenance testing of the Facility's protective relaying is imperative for safe, reliable operation of the Facility. The test cycle for such protective relaying shall not be less frequent than once every twelve (12) calendar months or the manufacturer's recommended test cycle, whichever is more frequent. The Interconnector shall provide copies of these test records to Eversource within thirty (30) days of the completion of such maintenance testing. Eversource may disconnect the Facility from the Eversource system if the Interconnector fails to adhere to these standards. The Interconnector is responsible for all ongoing maintenance costs associated with the Facility.

Article 11. Disconnection.

A. Temporary Disconnection.

Emergency Conditions. Eversource may immediately and temporarily disconnect the Facility from the Eversource system without prior notification in cases where, in the reasonable judgment of Eversource, the continued connection of the Facility is imminently likely to (a) endanger persons or damage property or (b) cause an adverse effect on the integrity or security of, or damage to, the Eversource system or to other electric power systems to which the Eversource system is directly connected (each, an "*Emergency Condition*"). After temporary disconnection or suspension pursuant to this paragraph, the Facility may not be reconnected or resume operation until Eversource and Interconnector are both satisfied that the cause of such Emergency Condition has been corrected. If the Interconnector fails to correct the Emergency Condition within ninety (90) days from the time that Eversource has temporarily disconnected the Facility due to such an event, Eversource may elect to terminate this Agreement and/or permanently disconnect the Facility.

Routine Maintenance, Construction and Repair. Eversource shall have the right to disconnect the Facility from the Eversource system when necessary for routine maintenance, construction and repairs to the Eversource system. Eversource shall provide the Interconnector with notice of such disconnection, consistent with Eversource's Planned and Unplanned Outage Scheduling Procedure. If the Interconnector requests disconnection by Eversource, the Interconnector will be provided with information regarding Eversource scheduling practices. Such disconnection shall be scheduled in accordance with Eversource's Planned and Unplanned Outage Scheduling Procedure. Eversource shall make reasonable efforts to work with Interconnector to schedule a mutually convenient time or times to temporarily disconnect the Facility pursuant to this paragraph.

Forced Outages. During any forced outage, Eversource shall have the right to temporarily disconnect the Facility from the Eversource system in order to affect immediate repairs to the Eversource system. Eversource shall use reasonable efforts to provide the Interconnector with prior notice of such temporarily disconnection; provided, however, Eversource may temporarily

disconnect the Facility from the Eversource system without such notice pursuant to this paragraph in the event circumstances do not permit such prior notice to the Interconnector.

Non-Emergency Adverse Operating Effects. Eversource may temporarily disconnect the Facility if it is having a non-emergency adverse operating effect on the Eversource system or on other customers (a "*Non-Emergency Adverse Operating Effect*") if the Interconnector fails to correct such Non-Emergency Adverse Operating Effect within forty-five (45) days of Eversource's written notice to the Interconnector requesting correction of such Non-Emergency Adverse Operating Effect. If the Interconnector fails to correct a Non-Emergency Adverse Operating Effect within ninety (90) days from the time that Eversource has temporarily disconnected the Facility due to such an event, Eversource may elect to terminate this Agreement and/or permanently disconnect the Facility.

Modification of the Facility. Eversource has the right to immediately suspend Interconnection service and temporarily disconnect the Facility in the event any material modification to the Facility or the Interconnector's Interconnection facilities has been implemented without prior written authorization from Eversource.

Re-connection. Any temporary disconnection pursuant this Article 11 shall continue only for so long as is reasonably necessary. The Interconnector and Eversource shall cooperate with each other to restore the Facility and the Eversource system, respectively, to their normal operating states as soon as reasonably practicable following the correction of the event that led to the temporary disconnection.

B. Permanent Disconnection.

The Interconnector may permanently disconnect the Facility at any time upon thirty (30) days prior written notice to Eversource. Eversource may permanently disconnect the Facility upon termination of this Agreement in accordance with Article 6. Eversource may permanently disconnect the Facility in the event the Interconnector is unable to correct an Emergency Condition or a Non-Emergency Adverse Operating Effect in accordance with this Article 11.

Article 12. Modification of Agreement.

In order for any modification to this Agreement to be binding upon the parties, said modification must be in writing and signed by both parties.

Article 13. Confidentiality.

Eversource shall maintain the confidentiality of information provided from the Interconnector to Eversource if such information is clearly marked and labeled "Confidential" (the "*Confidential Information*"). Confidential Information shall not include information that (a) is or hereafter becomes part of the public domain, (b) previously was in the possession of Eversource, or (c) Eversource is required to disclose pursuant to a valid order of a court or other governmental body or any political subdivision thereof; provided, however, that to the extent that it may lawfully do so, Eversource shall first have given notice to the Interconnector and given the Interconnector a reasonable opportunity to interpose an objection or obtain a protective order requiring that the Confidential Information and/or documents so disclosed be used only for the purpose for which the order was issued; provided further that if such Confidential Information is requested or required by the NHPUC, Eversource shall seek protective treatment of such Confidential Information.

Article 14. Permits and Approvals.

The Interconnector is responsible for obtaining all environmental and other permits required by governmental authorities for the construction and operation of the Facility (each, a "*Required Permit*"). Eversource assumes no responsibility for obtaining any Required Permit, advising the Interconnector with respect to Required Permits, or assuring that all Required Permits have been obtained by the Interconnector. Upon written request of Eversource, the Interconnector shall promptly provide to Eversource a copy of any Required Permit.

Article 15. Default and Remedies.

A. Defaults. Each of the following shall constitute an "*Event of Default*"

(i) A Party fails to pay any bill or invoice for charges incurred pursuant to this Agreement or any other amount due from such Party to the other Party as and when due, any such failure shall continue for a period of thirty (30) days after written notice of nonpayment from the affected Party to the defaulting Party; provided, however, if such Party disputes such bill, invoice or other amount due in good faith, then such failure to pay shall not constitute an Event of Default and the Parties shall resolve such dispute in accordance with Article 9;

(ii) A Party (a) fails to comply with any other provision of this Agreement or breaches any representation or warranty in any material respect and (b) fails to cure or remedy such failure or breach within sixty (60) days after notice and written demand by the other Party to cure the same or such longer period reasonably required to cure the same (not to exceed an additional ninety (90) days unless otherwise mutually agreed upon, provided that the failing or breaching Party diligently continues to cure until such failure or breach is fully cured). This provision pertains only to cure periods not specifically addressed elsewhere in this Agreement;

(iii) Interconnector modifies the Facility or any part of the Interconnection without the prior written approval of Eversource; or

(iv) A Party fails to perform any obligation hereunder in accordance with (a) applicable laws and regulations, (b) the ISO-NE operating documents, procedures, and reliability standards, and (c) Good Utility Practice.

B. Remedies. Upon the occurrence of an Event of Default, the non-defaulting Party may, at its option, in addition to any remedies available under any other provision herein, do any, or any combination, as appropriate, of the following: (a) continue to perform and enforce this Agreement; (b) recover damages from the defaulting Party except as limited by this Agreement; (c) by written notice to the defaulting Party terminate this Agreement; or (d) pursue any other remedies it may have under this Agreement or under applicable law or in equity.

Article 16. Prior Agreements Superseded.

Once effective, this Agreement with any attachments represents the entire agreement between the parties with respect to the interconnection of the Facility with the Eversource electric system and, as between Interconnector and Eversource, all previous agreements including previous discussion, communications and correspondence related thereto are superseded by the execution of this Agreement.

Article 17. Waiver of Terms or Conditions.

The failure of either party to enforce or insist upon compliance with any of the terms or conditions of this Agreement shall not constitute a general waiver or relinquishment of any such terms or conditions, but the same shall remain at all times in full force and effect. Any waiver is only effective if given to the other party in writing.

Article 18. Binding Effect; Assignment

This Agreement shall be binding upon, and shall inure to the benefit of, the respective successors and permitted assigns of the parties hereto. Eversource shall not assign this Agreement or any of its rights or obligations hereunder without the prior written consent of Interconnector except to a successor-in-interest. Eversource shall provide written notice to Interconnector of any such assignment to a successor-in-interest within fifteen (15) days following the effective date of the assignment. Interconnector shall have the right to assign this Agreement to any person or entity that is a successor-in-interest to the Facility without the consent of Eversource. In the event of any such assignment, Interconnector shall notify Eversource in writing within fifteen (15) days following the effective date of the assignment. Interconnector may make such other assignment of this Agreement as it determines, subject to the prior written consent of Eversource, which consent shall not be unreasonably withheld or delayed. Any assignment in violation of this Article shall be void at the option of the non-assigning party.

Article 19. Applicable Law.

This Agreement is made under the laws of the State of New Hampshire and, to the extent applicable, the Federal Power Act, and the interpretation and performance hereof shall be in accordance with and controlled by such laws, excluding any conflicts of law provisions of the State of New Hampshire that could require application of the laws of any other jurisdiction.

Article 20. Changes in State Regulations or Law.

Upon thirty (30) days prior written notice, Eversource may terminate this Agreement if there are any changes in NHPUC regulations or New Hampshire law that affects Eversource's ability to perform its obligations under this Agreement.

Article 21. Headings.

Captions and headings in the Agreement are for ease of reference and shall not be used to and do not affect the meaning of this Agreement.

Article 22. Notices and Service.

All notices, including communications and statements which are required or permitted under the terms of this Agreement, shall be in writing, except as otherwise provided or as reasonable under the circumstances. Service of a notice may be accomplished and will be deemed to have been received by the recipient party on the day of delivery if delivered by personal service, on the day of confirmed receipt if delivered by telecopy, registered or certified commercial overnight courier, or registered or certified mail or on the day of transmission if sent by telecopy with evidence of receipt obtained, and in each case addressed as follows:

Interconnector: Ampesand Brooklyn Dam Hydro LLC
717 Atlantic Ave, Suite 1A
Boston, MA 02111

Eversource: Public Service Company of New Hampshire
d/b/a Eversource Energy
780 North Commercial Street
P. O. Box 330
Manchester, NH 03105-0330
Richard C. Labrecque
Manager, Distributed Generation

Article 23. Counterparts.

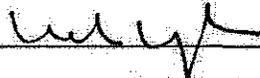
This Agreement may be executed in counterparts, each of which shall be deemed an original, and all counterparts so executed shall constitute one agreement binding on all of the Parties hereto, notwithstanding that all of the Parties are not signatories to the same counterpart. Facsimile counterparts may be delivered by any Party, with the intention that they shall have the same effect as an original counterpart hereof.

Article 24. Signatures.

Each Party hereby signifies its agreement to the all of the terms of this Agreement by its signatures hereto. Each Party represents that it has carefully reviewed this Agreement individually and with counsel and that it has knowingly and willingly executed this Agreement.

IN WITNESS WHEREOF, the parties, each by its duly authorized representative, have hereunto caused their names to be subscribed, as of the day and year first above written.

Interconnector

Signature: 

Name: LUTZ WEGTER

Title: MANAGER

Duly Authorized

Eversource Energy

Signature: 

Name: RICHARD C. LABRECQUE

Title: MANAGER - DISTRIBUTED GENERATION

Duly Authorized

**Ampersand Brooklyn Dam Hydro
(5440 Hydro Applicant)**

Gregory Cloutier

80A Elm Street

Lancaster, NH 03584

September 1, 2015

Federal Energy Regulatory Comm.

New York Regional Office

19 West 34th Street-Suite 400

New York, NY 10001

Att.: Regional Engineer

RE: Project 13806, First Progress Report for Ampersand Brooklyn Dam Hydro, Groveton, NH

Dear Sir;

On August 14, 2015, the Commission issued an "Order Granting Exemption From Licensing" for the Brooklyn Dam Project, a 600 kwh hydroelectric project located on the Upper Ammonoosuc River in the township of Northumberland, County of Coos, NH.

As described in the License Exemptions, the Brooklyn Dam is an existing dam and powerhouse circa 1930's. The dam and the powerhouse were owned and maintained through the years by the Groveton Paper Company and inspected by the State of NH Dam Safety Bureau, and is considered to be in good repair.

The Brooklyn Project has two existing turbine holes and draft tubes ready for the installation of a turbine. Many of the standard project construction steps have been already been completed before the July 28, 2014 license exemption filing and the first project inspection was completed by Thoma Beno of FERC-NY on November 18, 2014 with Steve Doyon of the NH Dam Safety.

Because the equipment is purchased and onsite we are requesting FERC NY to do an expedited review of the equipment installation.

Progress Report

For the purpose of this First Filing have listed the project features that were complete prior to the Summer of 2014 prior to the FERC License Exemption.

1. 100' long, 45' wide forebay, with three 15.2' wide, 15.5' high trash racks, with 1" clear bar spacing. (See Photo, P-1)

COMPLETE

2. Existing 45-foot-long, 48-foot-tall, and 23-foot-high brick and concrete powerhouse. (See Photo P-2)

EXISTING, REPAIR, AND READY FOR TURBINES

3. two new 300-kW Kaplan turbine generating units for a total installed capacity of 600 kW. Water from the turbines will be discharged into an existing 48-foot-long, 45-foot-wide tailrace.

THE TWO 300 KW KAPLIN TURBINES WERE DELIVERED ON AUGUST 24, 2015, AND ARE READY TO BE INSTALLED IN THE 2 EXISTING DRAFT TUBES WHICH WILL DISCHARGE INTO THE EXISTING 48 FOOT LONG BY 45 FOOT WIDE TAILRACE. (SEE PHOTOS P3 AND P4).

4. Power will be transmitted through a new 100-foot-long, 480-volt underground transmission line connecting the powerhouse electrical panel to three new single-phased transformers. A new 300-foot-long, 35.4-kilovolt above-ground transmission line will transmit power from the transformers to the regional distribution grid. THE INTERCONNECTION STUDY IS COMPLETE . THIS WORK WILL BEGIN IN 8 WEEKS.

5. No Civil Construction is required to install the turbines at this project; This work was completed prior to the License Exemption filing and in consultation with NH Dam Safety Early Summer of 2014 while the river levels were down to historic low levels.

We respectfully request FERC-NY to exempt the project from: contract plans and specifications, including a soil erosion and sediment control plan; cofferdam and deep excavation construction drawings, as appropriate; as-built drawings; a public safety plan; and project modifications resulting from environmental requirements.

No River work is required at this time to install the turbines and finish this project.

6. Flashboards: All flashboards, Side spillway flashboards (P-4) are installed and in the lay down position for flood safety. The project has 3 hydraulic flashboards ready to install in the next few months. This installation of the 3 remaining flashboards is expected to be installed by maintaining the river level at the top of the dam crest .

NH Dam Safety and NH Fish and Game will be notified if the water level is lowered below the Crest of the Dam.

ADMINISTRATIVE PROVISIONS - REQUIREMENTS

As part of this Progress Report we

- A. Annual Charge: NO COMMENT

B. Start of Construction: Brooklyn Dam Hydro Project and 5440 Hydro have been working on this project since its purchase in Summer 2013.

Dam and Civil structures were repaired during the early Summer after consultation with NH Dept of Services and NH Dam Safety. This work was done prior to license acceptance.

Actual 2015 work began August 3, 2015 in preparation for the License issue on August 14, 2015.

As stated before the Turbines, Generators, and related power equipment are onsite as of August 24, 2015 and are being installed now.

C. Exhibit F and G Drawings: We are in the process of reviewing these exhibits for revisions.

D. Project Safety: We agree with the requirements of this Provision.

E. Operations and Maintenance: We agree with the requirements of this Provision.

F. Exemptee Liability : We agree with the requirements of this Provision.

G. Conservation and Development Fish and Wildlife: No Comment

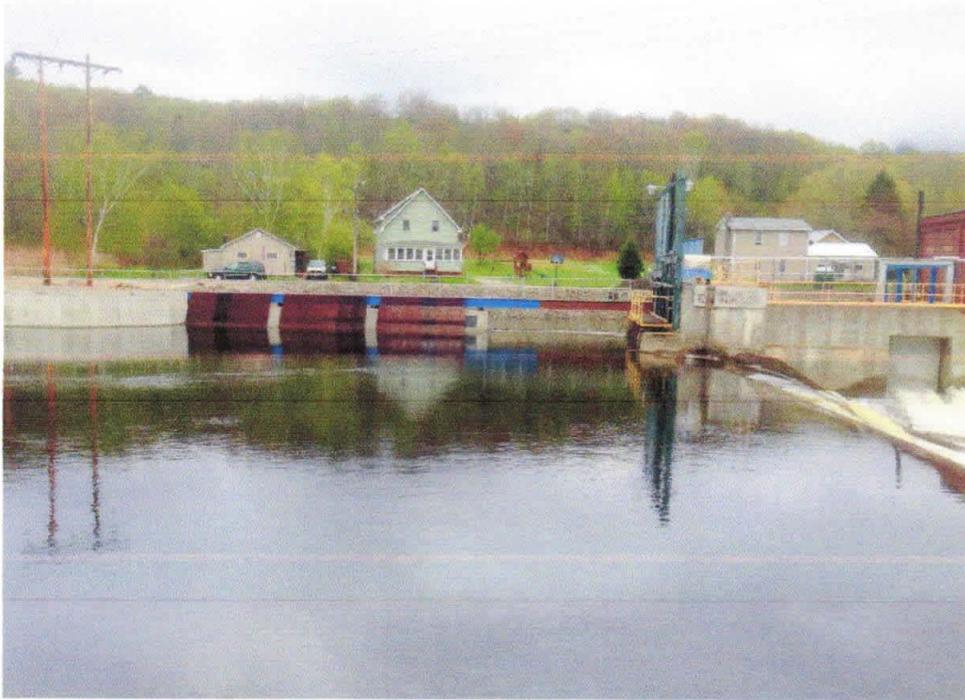
H. Project Financing: We respectfully request the Commission to exempt this project from this project for the following reasons.

1. Brooklyn Dam Project and 5440 Hydro has been ready to complete this project for the past 8 months waiting on the License Exemption.
2. The turbines and generator components are already onsite which makes up 60% of the project cost.
3. The installation of the turbines is not major project construction and the mechanical install began on August 24, 2015 shortly after the turbines and generators were delivered
4. Many if not all of the project features, were already completed before the licensee application was accepted.
5. The installation of the vertical Kaplan turbines in the existing power house draft tube hole should not be delayed at this time of year.
6. The licensee is requesting a expedited review of the pre construction items.
7. Ampersand has a proven history of project operation.

I. Project Rights: no comment on this provision.

J. Commission Approval of Resource Plan, Notifications and Filings of Reports and Amendments: No Comment related to this Provision.

K. Review of Final Plans and Specifications; There is no civil work is expected to finish the installation of the mechanical equipment.



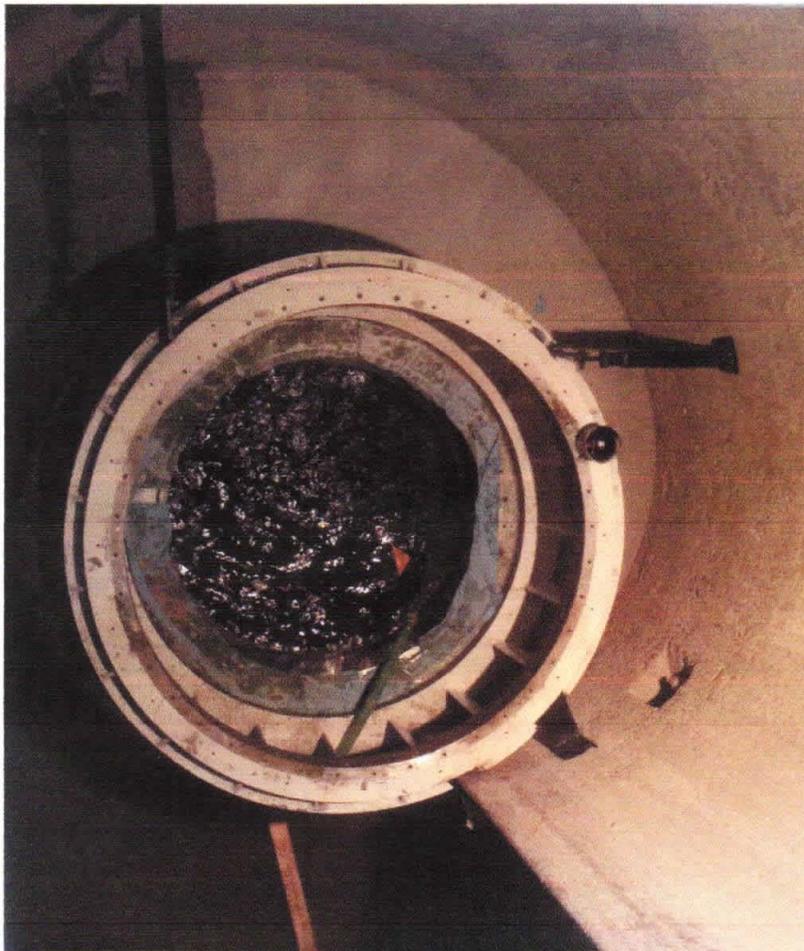
P-1, Fore bay photo, with trash racks, note that all flash boards are in the down position.



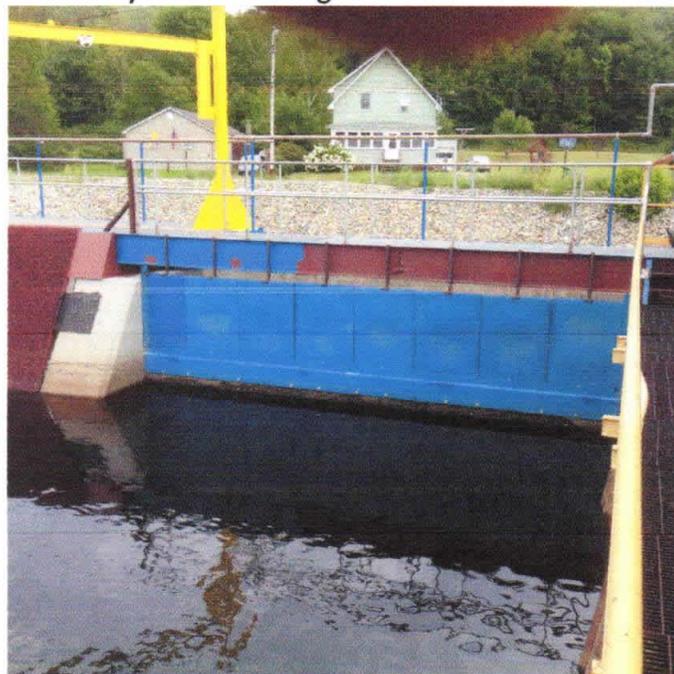
P-2 2013 Power House Photo



P-3; August 24, 2015 Turbine Delivery



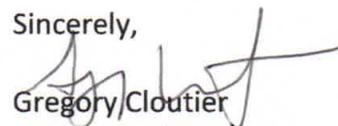
P-4 Brooklyn Dam Existing Draft tube hole with imbeds



P-4

If you have any questions, don't hesitate to contact me at 603.443.7610.

Sincerely,



Gregory Cloutier
Project Engineer

CC
FERC Washington-e-library
John Spain-FERC
Thoma Beno-FERC
Steve Doyon-NHDES Dam Safety

Document Content(s)

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5440 Hydro LLC, Inc.
717 Atlantic Avenue, Suite 1A
Boston, MA 02111
Tel: 416 643 6615
Fax: 416 642 6611

Federal Energy Regulatory Commission
New York Regional Office
19 West 34th Street-Suite 400
New York, NY 10001
Att.: Regional Engineer

**RE: Project 13806, Second Progress Report for Ampersand Brooklyn Dam Hydro,
Groveton, NH**

Dear Sir:

On August 14, 2015, the Federal Energy Regulatory Commission (the "Commission") issued an "Order Granting Exemption from Licensing" to 5440 Hydro Inc. (the "Exemptee") for the Brooklyn Dam Hydroelectric Project, a 600 kWh run-of-river hydroelectric project located on the Upper Ammonoosuc River in the township of Northumberland, County of Coos, NH (the "Project").

The Exemptee is hereby filing its second progress for the Project. Please see below an update on construction of the Project:

1. Forebay, 1" trash racks, flashboards, hydraulic flood gates, brick powerhouse, are all complete.
2. Control panel and PLC controls are operational since December 18, 2015.
3. Two 300-kW Kaplan turbine generating units for a total installed capacity of 600 kW. Water from the turbines will be discharged into an existing 48-foot-long, 45-foot-wide tailrace.

This Work is complete and start up was completed December 18, 2015. See Photo shown below.

4. Interconnection with the Utility, through a new 100-foot-long, 480-volt underground transmission line connecting the powerhouse electrical panel to three new single-phased transformers. A new 300-foot-long, 35.4-kilovolt above-ground transmission line will transmit power from the transformers to the regional distribution grid.

THE LOCAL UTILITY COMPLETED CONNECTION OF THE 3 PHASE 34.5 KV LINE TO THE EXEMPTEE'S TRANSFORMERS. METER, RELAY INSTALLATION AND TESTING HAS BEEN COMPLETED DECEMBER 18, 2015.

5. Civil Construction work – complete.

Start-up and Testing: This Project started producing power at 1.30 pm on Friday December 18, 2015. Automation and operational tuning will continue for the remainder of December.

Other exemption requirements

As requested in FERC letter from September 22, 2015, the Exemptee will file as-built drawings, including stamped Exhibit F and G project drawings, with the Commission within 90 days of project completion. The Exemptee will file the Public Safety Plan with the New York Regional Office within 60 days of project completion.

If you have any questions, please contact Project Manager Gregory Cloutier at 603.443.7610 or myself at 416.643.6615.

Sincerely

Lutz Loegters
Asset Manager
5440 Hydro Inc.
Lutz@ampersandenergy.com
Tel. 416.643.6615

cc
FERC Washington-e-library
John Spain-FERC
Thoma Beno-FERC
Steve Doyon-NHDES Dam Safety

P1- Unit 1



5440 Hydro Inc.
Lutz Loegters
Project Manager
717 Atlantic Avenue
Boston, MA 02111

WATER QUALITY CERTIFICATION

In Fulfillment of

**Section 401 of the United States Clean Water Act (33 U.S.C 1341)
and NH RSA 485-A:12, III and NH RSA 485-A:12, IV**

WQC # 2015-FERCX-001

| | |
|--|---|
| Activity Name | Redevelopment and Operation of the Brooklyn Hydropower Dam (FERC No. 13806-; NH Dam No. D182003) |
| Activity Location | Northumberland, NH |
| Affected Surface waters | Upper Ammonoosuc River (see section D-6 for specific waterbodies) |
| Owner/Applicant | 5440 Hydro Inc. 717 Atlantic Avenue Boston, MA 02111 |
| Appurtenant State permit(s) (and any amendments): | Wetlands Permit # 2014-02100 |
| Applicable Federal permit(s): | This Certification applies to the following federal licenses or permits: Federal Energy Regulatory Commission (FERC) Order Granting Exemption from Licensing (10 MW or less) issued August 14, 2015 |

A. INTRODUCTION

5440 Hydro, Inc. (Applicant) is proposing to redevelop the Brooklyn Dam (Dam) located on the Upper Ammonoosuc River in Northumberland, NH which includes the refurbishment of the existing dam and the operation of the dam as a hydropower project (Activity). A more complete description of the Activity is provided in item D-1 of this Certification.

This 401 Water Quality Certification (401 WQC or Certification) documents laws, regulations, determinations and conditions related to the Activity for the attainment and maintenance of NH surface water quality standards, including the provisions of NH RSA 485-A:8 and NH Code of Administrative Rules Env-Wq 1700, for the support of designated uses identified in the standards.

B. 401 CERTIFICATION APPROVAL

Based on the facts, findings and conditions noted below, the New Hampshire Department of Environmental Services (DES) has determined that there is reasonable assurance that construction and operation of the Activity will not violate surface water quality standards. DES hereby issues this Certification, subject to the conditions in Section E of this Certification, in accordance with Section 401 of the United States Clean Water Act (33 U.S.C. 1341), RSA 485-A:12,III.

C. STATEMENT OF FACTS AND LAW

- C-1. Section 401 of the United States Clean Water Act (33 U.S.C. 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.....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-2. Section 401 further 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-3. §401(d) of the CWA provides that: "Any certification provided under this section [401] 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 [enumerated provisions of the CWA]...and with any other appropriate requirement of State law set forth in such certification."

According to EPA 401 Guidance¹, "Under § 401(d) the water quality concerns to consider and the range of potential conditions available to address those concerns, extend to any provision of state or tribal law relating to the aquatic resource. Considerations can be quite broad so long as they relate to water quality. The U.S. Supreme Court has stated that, once the threshold of a discharge is reached (necessary for § 401 certification to be applicable), the conditions and limitations in the certification may address the permitted activity as a whole."²

- C-4. NH RSA 485-A:12, III, states: "No activity, including construction and operation of facilities, that requires certification under section 401 of the Clean Water Act

¹ *Clean Water Action Section 401 Water Quality Certification: A Water Quality Protection Tool for States and Tribes.* U.S. Environmental Protection Agency, Office of Wetlands, Oceans and Watersheds. 2010.

² *PUD No. 1 of Jefferson County v. Washington Department of Ecology*, 511 U.S. 700, 712 (1994).

and that may result in a discharge, as that term is applied under section 401 of the Clean Water Act, to surface waters of the state may commence unless the department certifies that any such discharge complies with the state surface water quality standards applicable to the classification for the receiving surface water body. The department shall provide its response to a request for certification to the federal agency or authority responsible for issuing the license, permit, or registration that requires the certification under section 401 of the Clean Water Act. Certification shall include any conditions on, modifications to, or monitoring of the proposed activity necessary to provide assurance that the proposed discharge complies with applicable surface water quality standards. The department may enforce compliance with any such conditions, modifications, or monitoring requirements as provided in RSA 485-A:22."

C-5. NH RSA 485-A: IV states: "No activity that involves surface water withdrawal or diversion of surface water that requires registration under RSA 488:3, that does not otherwise require the certification required under paragraph III, and which was not in active operation as of the effective date of this paragraph, may commence unless the department certifies that the surface water withdrawal or diversion of surface water complies with state surface water quality standards applicable to the classification for the surface water body. The certification shall include any conditions on, modifications to, or monitoring of the proposed activity necessary to provide reasonable assurance that the proposed activity complies with applicable surface water quality standards."

C-6. NH RSA 485-A:8 and Env-Wq 1700 (Surface Water Quality Regulations), together fulfill the requirements of Section 303 of the Clean Water Act that the State of New Hampshire adopt water quality standards consistent with the provisions of the Act.

C-7. Env-Wq 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-8. Env-Wq 1703.01 Water Use Classifications.

(a) State surface waters shall be divided into class A and class B, pursuant to RSA 485-A:8, I, II and III. Each class shall identify the most sensitive use which it is intended to protect.

(b) All surface waters shall be restored to meet the water quality criteria for their designated classification including existing and designated uses, and to maintain the chemical, physical, and biological integrity of surface waters.

(c) All 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.

(d) Unless the flows are caused by naturally occurring conditions, surface water quantity shall be maintained at levels adequate to protect existing and designated uses.

C-9. Env-Wq 1702.46 defines surface waters as "surface waters of the state" as defined in NH RSA 485-A:2, XIV and waters of the United States as defined in 40 CFR 122.2.

NH RSA 485-A:2, XIV defines "surface waters of the state" 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."

40 CFR 122.2 defines "waters of the United States".

C-10. NH RSA 482-A:2, X. defines "Wetlands" as "[a]n area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

C-11. Env-Wq 1702.17 "Biological Integrity" means the ability of an aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of similar natural habitats of a region.

C-12. Env-Wq 1702.17 "Designated uses" means those uses specified in water quality standards for each water body or segment whether or not such uses are presently occurring. Based on a review of RSA 485-A:8 and Env-Wq 1700, and as reported in the New Hampshire Consolidated Assessment and Listing Methodology³, designated uses include Aquatic Life, Fish and Shellfish Consumption, Primary and Secondary Contact Recreation, Drinking Water After Adequate Treatment and Wildlife.

C-13. Env-Wq 1702.18 defines a discharge as:

- "a. The addition, introduction, leaking, spilling, or emitting of a pollutant to surface waters, either directly or indirectly through the groundwater, whether done intentionally, unintentionally, negligently, or otherwise;
- b. The placing of a pollutant in a location where the pollutant is likely to enter surface waters."

³ See <http://des.nh.gov/organization/divisions/water/wmb/swqa/2012/index.htm>

- C-14. Env-Wq 1702.23 "Existing uses" means those uses, other than assimilation waste transport, which actually occurred in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.
- C-15. Env-Wq 1702.39 defines a pollutant as: "pollutant" as defined in 40 CFR 122.2. This means "dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water."
- C-16. The term "discharge", as applied under section 401 of the Clean Water Act means the potential for a discharge. It does not need to be a certainty, only that it may occur should the federal license or permit be granted. Further, the discharge does not need to involve the addition of pollutants (such as water released from the tailrace of a dam). As the U.S. Supreme Court has stated "[w]hen it applies to water, 'discharge' commonly means a 'flowing or issuing out'" and an addition of a pollutant is not "fundamental to any discharge"⁴.
- C-17. Env-Wq 1703.13 entitled "Temperature", states the following:
- "(a) There shall be no change in temperature in class A waters, unless naturally occurring.
 - (b) Temperature in class B waters shall be in accordance with RSA 485-A:8, II, and VIII.
- NH RSA-A:8,II states the following for Class B waters "[A]ny 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."
- NH RSA-A:8,VIII states the following: "In prescribing minimum treatment provisions for thermal wastes discharged to interstate waters, the department shall adhere to the water quality requirements and recommendations of the New Hampshire fish and game department, the New England Interstate Water Pollution Control Commission, or the United States Environmental Protection Agency, whichever requirements and recommendations provide the most effective level of thermal pollution control."
- C-18. Env-Wq 1703.14, entitled "Nutrients", states that
- "a. Class A waters shall contain no phosphorous or nitrogen unless naturally occurring.

⁴ Information in this paragraph is from page 4 of the following guidance document: *Clean Water Action Section 401 Water Quality Certification: A Water Quality Protection Tool for States and Tribes*. U.S. Environmental Protection Agency, Office of Wetlands, Oceans and Watersheds. 2010. The Supreme Court case that is referred to is *S.D. Warren Co. v. Maine Board of Environmental Protection et al*, 547 U.S. 370, 126 S. Ct. 1853 (2006).

- b. Class B waters shall contain no phosphorous or nitrogen in such concentrations that would impair any existing or designated uses, unless naturally occurring.
- c. Existing discharges containing either phosphorous or nitrogen which encourage cultural eutrophication shall be treated to remove phosphorus or nitrogen to ensure attainment and maintenance of water quality standards.
- d. There shall be no new or increased discharge of phosphorous into lakes or ponds.
- e. There shall be no new or increased discharge(s) containing phosphorous or nitrogen to tributaries of lakes or ponds that would contribute to cultural eutrophication or growth of weeds or algae in such lakes and ponds."

C-19. Env-Wq 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-20. Env-Wq 1703.21 (a)(1) states that "Unless naturally occurring or allowed under part Env-Wq 1707, all surface waters shall be free from toxic substances or chemical constituents in concentrations or combinations that injure or are inimical to plants, animals, humans or aquatic life."

C-21. Env-Wq 1703.07 through 1703.11 contain standards relative to dissolved oxygen, bacteria, benthic deposits, oil and grease, and turbidity.

C-22. Antidegradation provisions are included in Env-Wq 1702 and Env-Wq 1708.

- a. Env-Wq 1702.02 states that "Antidegradation" means a provision of the water quality standards that maintains and protects existing water quality and uses.
- b. Env-Wq 1708.02 states that "Antidegradation shall apply to: (a) Any proposed new or increased activity, including point source and nonpoint source discharges of pollutants, that would lower water quality or affect the existing or designated uses; (b) Any proposed increase in loadings to a waterbody when the proposal is associated with existing activities; (c) Any increase in flow alteration over an existing alteration; and (d) Any hydrologic modifications, such as dam construction and water withdrawals."
- c. Antidegradation applies to all parameters as evidenced by Env-Wq 1708.08 (a) (Assessing Waterbodies) which states " The applicant shall characterize the existing water quality and determine if there is remaining assimilative capacity for each parameter in question."
- d. According to Env-Wq 1708.04 (b), "A proposed discharge or activity shall not eliminate any existing uses or the water quality needed to maintain and protect those uses".

- e. Env-Wq 1702.03 states that "Assimilative capacity" means the amount of a pollutant or pollutants that can safely be released to a waterbody without causing violations of applicable water quality criteria or negatively impacting uses.
- f. Env-Wq 1708.08 describes the process for assessing waterbodies to determine if there is remaining assimilative capacity for each parameter in question.
- g. Env-Wq 1708.09 Significant or Insignificant Determination states : (a) Any discharge or activity that is projected to use 20% or more of the remaining assimilative capacity for a water quality parameter, in terms of either concentration or mass of pollutants, or volume or flow rate for water quantity, shall be considered a significant lowering of water quality. The department shall not approve such a discharge or activity unless the applicant demonstrates that the proposed lowering of water quality is necessary to achieve important economic or social development, in accordance with Env-Wq 1708.10, in the area where the waterbody is located.
- h. Env-Wq 1708.01 (b) states: "For significant changes in water quality, where the quality of the surface waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected unless the department finds, after full satisfaction of the intergovernmental coordination and public participation provisions that, in accordance with Env-Wq 1708.10, allowing lower water quality is necessary to accommodate important economic or social development in the area in which the surface waters are located. In allowing such degradation or lower water quality, the department shall assure water quality adequate to fully protect existing uses. Further, the department shall assure that the highest statutory and regulatory requirements shall be achieved for all new and existing point sources and that all cost effective and reasonable best management practices for nonpoint source control shall be implemented".
- i. Env-Wq 1708.01 (c) states: "For insignificant changes in water quality, where the quality of the surface waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected. In allowing such degradation or lower water quality, the department shall assure water quality adequate to protect existing uses fully. Further, the department shall assure that the highest statutory and regulatory requirements shall be achieved for all new and existing point sources and that all cost effective and reasonable best management practices for nonpoint source control shall be implemented".

C-23. Env-Wq 1708.05 - Protection of Water Quality in ORW.

- (a) Surface waters of national forests and surface waters designated as natural under NH RSA 483:7-a, I, shall be considered outstanding resource waters (ORW).
- (b) Water quality shall be maintained and protected in surface waters that constitute ORW, except that some limited point and nonpoint source discharges may be allowed providing that they are of limited activity which results in no more than temporary and short-term changes in

water quality. "Temporary and short term" means that degradation is limited to the shortest possible time. Such activities shall not permanently degrade water quality or result at any time in water quality lower than that necessary to protect the existing and designated uses in the ORW. Such temporary and short term degradation shall only be allowed after all practical means of minimizing such degradation are implemented.

C-24. Env-Wq 1708.07 Protection of Water Quality in High Quality Waters.

- (a) Subject to (b) below, high quality waters shall be maintained and protected, except that insignificant changes in water quality, as determined by the department in accordance with Env-Wq 1708.09, shall be allowed.
- (b) Degradation of significant increments of water quality, as determined in accordance with Env-Wq 1708.09, in high quality waters shall be allowed only if it can be demonstrated to the department, in accordance with Env-Wq 1708.10, that allowing the water quality degradation is necessary to accommodate important economic or social development in the area in which the receiving waters are located.
- (c) Economic/social benefits demonstration and alternatives analysis shall not be required for authorization of an insignificant lowering of water quality. However, in allowing a lowering of water quality, significant or insignificant, all reasonable measures to minimize degradation shall be used.
- (d) If the water body is Class A Water, the requirements of Env-Wq 1708.06 shall also apply.

C-25. Env-Wq 1702.06 states ""Best management practices" means those practices which are determined, after problem assessment and examination of all alternative practices and technological, economic and institutional considerations, to be the most effective practicable means of preventing or reducing the amount of pollution generated by point or nonpoint sources to a level compatible with water quality goals."

C-26. RSA 483 regarding Designated Rivers, states the following:

RSA 483:4, XVIII. "River corridor" means the river and the land area located within a distance of 1,320 feet of the normal high water mark or to the landward extent of the 100 year floodplain as designated by the Federal Emergency Management Agency, whichever distance is larger.

RSA 483:8-a, III. The duties of such committees shall be:

- (a) To advise the commissioner, the advisory committee, the municipalities through which the designated river or segment flows, and municipalities within tributary drainage areas on matters pertaining to the management of the river or segment and tributary drainage areas. Municipal officials, boards, and agencies shall inform such committees of actions which they are considering in managing and regulating activities within designated river corridors.
- (b) To consider and comment on any federal, state, or local governmental

plans to approve, license, fund or construct facilities that would alter the resource values and characteristics for which the river or segment is designated.

RSA 483:10-b. Withholding of Section 401 Certification. – The general court finds that the development of any dam or channel alteration activities within a natural river or segment or the development of any new dam within a rural or community river or segment, except as provided in RSA 483:9-a, II and RSA 483:9-b, II, will alter the physical and chemical characteristics of that river and will constitute violation of the water quality standards established under RSA 485-A:8. The commissioner shall deny certification of any federally licensed or permitted activity on such designated rivers or segments under section 401 of the Federal Water Pollution Control Act, P.L. 92-500, as amended.

RSA 483:12-a State Action; Notification of Rivers Coordinator; Petition for Review

I. Any state agency considering any action affecting any river or segment designated under this chapter shall notify the rivers coordinator prior to taking any such action. Such agency shall forward to the rivers coordinator for review and comment copies of all notices of public hearings, or, where a public hearing is not required, a copy of the application for issuance of a permit, certificate, or license within the designated river or corridor under RSA 485-C, RSA 485-A, RSA 483-B, RSA 12-E, RSA 270:12, RSA 482, RSA 482-A, RSA 149-M, RSA 430, or RSA 147-A. If an agency is notified by the rivers coordinator that a proposed activity would violate a protection measure under RSA 483:9, 483:9-a, 483:9-aa, or 483:9-b, such agency shall deny the application.

C-27. NH RSA 488:3 regarding registration of withdrawals and discharges states the following:

- I. No person shall withdraw or discharge a cumulative amount of more than 20,000 gallons of water per day, averaged over any 7-day period, or more than 600,000 gallons of water over any 30-day period, at a single real property or place of business without registering the withdrawal or discharge with the department. Transfers of such volume of water shall also be registered. Registration shall be in addition to any required permits.
- II. No registration shall be transferred to another person without written notification to the commissioner.

C-28. NH RSA 485:61 regarding Rules for Water Conservation, states the following:

- I. The department shall adopt rules, pursuant to RSA 541-A, for water conservation practices for water users. These rules shall strike a reasonable balance between environmental, energy, and economic impacts and be consistent with current industry standards and practices for different types of water users.
- II. The water conservation rules in paragraph I of this section shall apply to all new permit applicants and applications for water withdrawals subject

to the provisions of RSA 485:3, RSA 485:48, RSA 485-C:21 and section 401 of the Clean Water Act.

- III. Water conservation rules shall be consistent with applicable state or federal rules and regulations. Water Conservation Rules were adopted May 14, 2005 codified as Env-Wq 2101.

C-29. Env-Wq 2101.24 entitled Water Conservation Plan Required, states that

“(a) The applicants for approval of a source that would be a conservation source shall submit a water conservation plan that demonstrates compliance with the applicable provisions of Env-Wq 2101.05 through Env-Wq 2101.22 in accordance with the following:”

“(5) For a new withdrawal from a surface water associated with a project requiring a 401 Water Quality Certification, the water conservation plan shall be submitted prior to or in conjunction with the application for a 401 Water Quality Certification pursuant to Section 401 of the federal Clean Water Act;

(6) For a new withdrawal from a surface water that requires water quality certification pursuant to RSA 485-A:12, IV, the water conservation plan shall be submitted prior to or in conjunction with the certification request”.

Env-Wq 2101.23, entitled Waivers, allows DES to grant waivers of certain provisions in Env-Wq 2101 provided the person requesting the waiver submits a written request to DES that includes the information specified in Env-Wq 2101.23(d).

C-30. In 2010, DES published guidance (hereinafter called the 2010 instream flow guidance or 2010 ISF guidance) for estimating instream flow requirements for the protection of aquatic life for situations. The guidance is available at: <http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-11-3.pdf>.

C-31. Section 303(d) of the Clean Water Act (33 U.S.C. 1313(d)) and the regulations promulgated thereunder (40 C.F.R. 130.0 – 40 C.F.R. 130.11) require states to identify and list surface waters that are violating state water quality standards (i.e., Section 303(d) List) that do not have an approved TMDL. For these water quality-impaired waters, states must establish Total Maximum Daily Loads (TMDLs) for the pollutants causing the impairments and submit the list of impaired surface waters and TMDLs to EPA for approval. TMDLs include source identification, determination of the allowable load and pollutant reductions (by source) necessary to meet the allowable load. Once a TMDL is conducted, the pollutant/surface water is transferred to the list of impaired waters with approved TMDLs (known as Category 4A waters). The Section 303(d) List is, therefore, a subset of all impaired waters. The most recent Section 303(d) list of impaired waters is the 2012 Section 303(d) List. A list of all impaired waters is available at http://www2.des.state.nh.us/WaterShed_SWQA/WaterShed_SWQA.aspx

- C-32. On December 20, 2007, EPA approved the Northeast Regional Mercury TMDL⁵ which addressed mercury impairments in all New Hampshire fresh surface waters.
- C-33. When a surface water does not meet water quality standards (i.e., when it is impaired), the addition of pollutants causing or contributing to impairment is prohibited in accordance with the following:
- Env-Wq 1703.03 (a) states that "The presence of pollutants in the surface waters shall not justify further introduction of pollutants from point or nonpoint sources, alone or in any combination".
- NH RSA 485-A:12 (I) (Enforcement of Classification) states that "After adoption of a given classification for a stream, lake, pond, tidal water, or section of such water, the department shall enforce such classification by appropriate action in the courts of the state, and it shall be unlawful for any person or persons to dispose of any sewage, industrial, or other wastes, either alone or in conjunction with any other person or persons, in such a manner as will lower the quality of the waters of the stream, lake, pond, tidal water, or section of such water below the minimum requirements of the adopted classification".
- C-34. The Applicant applied for a case-specific exemption from licensing by the Federal Energy Regulatory Commission (FERC) for a small hydroelectric power project under 18 CFR§ 4 Subpart K.
- C-35. 18CFR§ 4 Subpart K, provides procedures for exemption on a case-specific basis from all or Part I of the Federal Power Act, including licensing for small hydroelectric power projects as defined in § 4.30(b)(29).
- C-36. Pursuant to Section 23(b)(1) of the Federal Power Act (FPA), §817(1), a non-federal hydroelectric project must (unless it has a still-valid pre-1920 federal permit) be licensed if it: (1) is located on a navigable water of the United States; (2) occupies lands of the United States; (3) utilizes surplus water or water power from a government dam; or (4) is located on a stream over which Congress has Commerce Clause jurisdiction, is constructed or modified on or after August 26, 1935, and affects the interests of interstate or foreign commerce.
- C-37. 18 CFR § 4.30(b)(31). Small hydroelectric power project means any project in which capacity will be installed or increased after the date of notice of exemption or application under subpart K of this chapter, which will have a total installed capacity of not more than 10 MW, and which:
- (i) Would utilize for electric power generation the water power potential of an existing dam that is not owned or operated by the United States or by an

⁵ Northeast Regional Mercury Total Maximum Daily Load. Connecticut Department of Environmental Protection, Maine Department of Environmental Protection, Massachusetts Department of Environmental Protection, New Hampshire Department of Environmental Services, New York State Department of Environmental Conservation, Rhode Island Department of Environmental Management, Vermont Department of Environmental Conservation, New England Interstate Water Pollution Control Commission. October 24, 2007.

instrumentality of the Federal Government, including the Tennessee Valley Authority; or

(ii) (A) Would utilize for the generation of electricity a natural water feature, such as a natural lake, waterfall, or the gradient of a natural stream, without the need for a dam or man-made impoundment; and

(B) Would not retain water behind any structure for the purpose of a storage and release operation.

C-38. 18 CFR § 4.106. Any case-specific exemption from licensing granted for a small hydroelectric power project is subject to the following standard terms and conditions:

(b) The construction, operation, and maintenance of the exempt project must comply with any terms and conditions that the United States Fish and Wildlife Service, the National Marine Fisheries Service, and any state fish and wildlife agencies have determined are appropriate to prevent loss of, or damage to, fish or wildlife resources or otherwise to carry out the purposes of the Fish and Wildlife Coordination Act, as specified in exhibit E of the application for exemption from licensing or in the comments submitted in response to the notice of exemption application.

C-39. NH RSA 482-A (Fill and Dredge in Wetlands) requires any person who excavates, removes, fills, dredges or constructs any structures in or on any bank, flat, marsh, or swamp in and adjacent to any waters of the state to obtain a wetlands permit from DES [NH RSA 482-A:3 I (a)].

On June 12, 2015, the wetlands permit (2014-02100) was approved for work in jurisdictional wetlands.

C-40. On February 5, 2015, the Applicant submitted an application and supplemental information for Water Quality Certification to DES which included a completed DES Water Quality Certification Application Form and a draft application to the Federal Energy Regulatory Agency (FERC) for exemption from licensing for a small hydroelectric power project.

C-41. On May 21, 2015, the U.S. Fish and Wildlife Service (USFWS) issued terms and conditions to FERC to prevent loss of, or damage to, fish and wildlife resources, and to otherwise carry out the purposes of the Fish and Wildlife Coordination Act. Pursuant to 18 CFR 4.106(b) any case-specific exemption from licensing granted by FERC for a small hydroelectric power project requires inclusion in the exemption of these terms and conditions.

C-42. On August 14, 2015, the Federal Energy Regulatory Agency (FERC) issued an "Order Granting Exemption from Licensing" for the Activity (FERC Project No. 13806-004). The order includes the terms and conditions specified by the U.S. Fish and Wildlife Service (USFWS) in their letter of May 21, 2015 (see C-41).

C-43. DES issued a draft section 401 Water Quality Certification for public comment from October 16, 2015 to November 17, 2015. No comments were received.

D. FINDINGS

- D-1. The Applicant proposes to refurbish the Brooklyn Dam (Dam) on the Upper Ammonoosuc River in Coos County and operate the Dam as a hydroelectric project (Activity) as described below.

The Activity will use the existing 120-foot long, 14-foot high timber crib Brooklyn dam (FERC No. 13806-004, NH Dam No. D182003). The drainage area upstream of the dam is approximately 240.7 square miles. The crest elevation of the dam is 878.73 National Geodetic Vertical Datum of 1929 (NGVD 1929). With 2.50-foot -high flashboards installed, the top of the spillway will be 881.23 NGVD 1929. With flashboards installed, the impoundment created by the dam extends approximately 0.8 miles upstream and has a surface area of approximately 26 acres. An existing flood gate structure with four 6.9- foot-wide, 10-foot -high floodgates is adjacent to the dam.

An existing 100-foot-long forebay, with three 15.2-foot-wide, 15.5 -foot-high trashracks leads to an existing concrete powerhouse. New trashracks will be installed that will meet US Fish and Wildlife Service (USFWS) specifications. The powerhouse will contain two new Kaplan turbine generating units each with an installed capacity of 300 kW (total capacity of 600 kW). Each turbine will be capable of operating at flows between 33 cubic feet per second (cfs) and 315 cfs; hence the total operating range of the Activity will be from 33 cfs to 630 cfs. Water from the turbines will be discharged to an existing 48-foot-long, 45-foot-wide tailrace. The power house and tailrace will be modified to accommodate the new turbine units which may require the temporary placement of cofferdams.

The Applicant proposes to operate the Activity in a run-of-river mode, whereby outflow from the project equals inflow at all times, and water levels in the impoundment will not be drawn down for electric generation. A new Programmable Logic Control (PLC) system will be installed to operate the project in run-of-river mode. When generating power within the operating range of the turbines, a 100-foot-long reach of the river will be bypassed from the dam to the downstream end of the tailrace.

When river inflow is within the operating range of the turbines (i.e., 33 to 630 cfs) the turbine/generator PLC will monitor the water level in the upstream impoundment and automatically adjust the wicket gates to maintain a steady pond water level at the top of the flashboards. When inflow is less than 33 cfs, all flow will pass over the spillway. When inflow exceeds 630 cfs the flood gates will be operated manually to control water level with water level not falling below the top of flashboards. When the flashboards are down, power can be generated but at a reduced output.

- D-2. The Applicant is responsible for the Activity, including construction and operation.
- D-3. The Brooklyn Dam is located between two other dams on the Upper Ammonoosuc River. The Red Dam is located approximately 0.8 miles upstream

and the Weston Dam is approximately 0.7 miles downstream of the Brooklyn Dam.

- D-4. The U.S. Geological Survey (USGS) maintains a hydrologic gaging station (No. 01130000) on the Upper Ammonoosuc River approximately 3.8 miles upstream of the Activity. The drainage area at the gage is 232 square miles.
- D-5. 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.
- D-6. The named and unnamed fresh water rivers and streams, lakes and ponds, and wetlands in New Hampshire affected by the Activity, are surface waters under Env-Wq 1702.46. DES has assigned Assessment Unit (AU) identification numbers to many, but not all surface waters. Surface waters that do not have an AU number are still considered surface waters of the State in accordance with Env-Wq 1702.46 (see C-9). Surface waters that could be potentially affected by the Activity and their associated AU numbers (where available) include, but are not limited to the following:

| Assessment Unit ID | Description |
|---------------------------|---|
| NHIMP801010707-02 | Upper Ammonoosuc River Red Dam Impoundment |
| NHIMP801010707-03 | Upper Ammonoosuc River Brooklyn Dam Impoundment |
| NHIMP801010707-04 | Upper Ammonoosuc River Weston Dam Impoundment |
| NHRIV801010707-18 | Upper Ammonoosuc River |

- D-7. The potentially affected surface waters are Class B waterbodies; therefore Class B New Hampshire surface water quality standards apply to the Activity. Class B waterways are considered suitable for aquatic life, primary and secondary contact recreation, fish consumption, wildlife, and, after adequate treatment, as a water supply (see C-12).
- D-8. The Upper Ammonoosuc River is not a designated river under RSA 483 (see C-26).
- D-9. The Upper Ammonoosuc River in the vicinity of the Activity is not an Outstanding Resource Water (see C-23).
- D-10. Many of the potentially affected surface waters are considered cold water fisheries by the NH Fish and Game Department.
- D-11. According to the 2014 list of impaired waters (see C-31), the following surface waters in the vicinity of the proposed Activity are listed as impaired. All impairments, with the exception of those highlighted in bold (which have approved TMDLs), are on the Section 303(d) List:

| Assessment Unit (AU) | Waterbody Name | Cause of Impairment (Designated Use Impaired) |
|-----------------------------|-----------------------|--|
|-----------------------------|-----------------------|--|

| Assessment Unit (AU) | Waterbody Name | Cause of Impairment (Designated Use Impaired) |
|--|-----------------------|---|
| | All freshwaters in NH | Mercury(FC) |
| Notes: AL = Aquatic Life, PCR = Primary Recreation, SCR = Secondary Recreation, FC = Fish Consumption, SFC = Shellfish Consumption | | |
| Impairments highlighted in bold have approved TMDLs. All other impairments are on the Section 303(d) List. All fresh surface waters are impaired mercury due to elevated levels of mercury in fish tissue which has resulted in statewide fish consumption advisory. | | |

As stated in C-33 of this Certification, when a surface water does not meet water quality standards (i.e., when it is impaired), the addition of pollutants causing or contributing to impairment is prohibited. As noted above, all fresh surface water in NH are impaired for mercury due to concentrations found in fish tissue which have resulted in a statewide fish consumption advisory. On December 20, 2007, EPA approved the Northeast Regional Mercury TMDL which addressed mercury impairments in all New Hampshire fresh surface waters (see C-32). The primary source of mercury is atmospheric deposition from in-state and out-of-state emissions. The proposed Activity is not expected to have a significant impact on mercury levels in fish tissue.

- D-12. The Activity will include the release of water from the tailrace of the Brooklyn Dam, which is considered a discharge as applied under § 401 of the Clean Water Act (see C-16).
- D-13. NH RSA 485-A:III applies to any activity that requires certification under § 401 of the Clean Water Act (see C-4). According to § 401 of the CWA, one of the "triggers" that determines if a § 401 certification is required, is the need for a federal license or permit (see C-1). Before the Activity in this Certification can be constructed and operated, FERC must issue a federal "Order Granting Exemption from Licensing" (i.e., Exemption Order). The Exemption Order serves as a federal permit to operate the Activity subject to the conditions in the Order (see C-38, C-41 and C-42), and, at the same time, it exempts the Applicant from the licensing provisions of Part I of the Federal Powers Act. As such, the Exemption Order meets the definition of a federal license or permit.
- D-14. The Activity involves a discharge (see D-12) and requires a federal Order from FERC (see C-42) which meets the definition of a license or permit (see D-13). Therefore, a § 401 Water Quality Certification is required in accordance with RSA 485-A: 12, III. On May 14, 2015, DES notified FERC that DES would be issuing a § 401 Water Quality Certification for the Activity.
- D-15. The Activity includes potential impacts to jurisdictional wetlands in New Hampshire and therefore requires a DES Wetlands Permit (or permits) in accordance with NH RSA 482-A. This 401 Certification decision relies, in part, on an approved permit (or permits) from the DES Wetlands Bureau for the potential impacts to jurisdictional wetlands. Through its processing and issuance, DES wetlands permits issued for the Activity will address any potential impacts to jurisdictional wetlands. On June 12, 2015, DES issued Wetlands Permit 2014-02100. The permit includes provisions to prevent surface water quality standard violations during construction.

- D-16. During the summer of 2013 the Applicant performed a water quality monitoring study requested by DES. Water quality data for dissolved oxygen and water temperature were collected upstream and downstream of the Dam. Monitoring was conducted continuously for a 10 day period in August, 2013 using multi-parameter dataloggers when flows were relatively low (i.e., below three times the 7Q10 low flow⁶). Results were then submitted to DES for review. On October 25, 2013, DES sent a letter to the Applicant stating that based on current operation of the facility, current water quality standards, and the water quality data collected in 2013, the Upper Ammonoosuc River immediately upstream and downstream of the Brooklyn Dam appears to be attaining water quality standards for dissolved oxygen at this time. When the Activity is generating power with 2.50-foot-high flashboards in place, the impoundment volume and hydraulic residence time will be increased. Further, flow, which is currently passing over the spillway and receiving some reaeration, will be passed through the turbines which may be less aerated. Therefore, under future operating conditions, there is the potential for dissolved oxygen levels to be reduced. Once the Activity is operational, monitoring should be conducted to confirm that dissolved oxygen levels are still being met.
- D-17. On May 21, 2015, the U.S. Fish and Wildlife Service (USFWS) issued a letter to FERC with terms and conditions to prevent loss of, or damage to, fish and wildlife resources, and to otherwise carry out the purposes of the Fish and Wildlife Coordination Act (referred to herein as the USFWS's terms and conditions letter). Pursuant to 18 CFR 4.106(b), FERC included the USFWS's terms and conditions in the Order Granting Exemption from Licensing issued on August 14, 2015. A copy of the USFWS's terms and conditions are provided below⁷. In general, DES concurs with these terms and conditions.

MODIFIED TERMS AND CONDITIONS

Pursuant to 18 CFR 4.106(b), any case-specific exemption from licensing granted for a small hydroelectric power project requires inclusion in the exemption of all terms and conditions that are prescribed by state and Federal fish and wildlife agencies to prevent loss of, or damage to, fish and wildlife resources, and to otherwise carry out the purposes of the Fish and Wildlife Coordination Act.

Consistent with this office's responsibilities, the Department has determined that the following terms and conditions, to be included in their entirety, shall apply to any exemption which the Federal Energy Regulatory Commission issues for the Brooklyn Dam Hydroelectric Project.

1. The Exemptee shall operate the Project in an instantaneous run-of-river mode, whereby inflow to the Project will equal outflow from the Project at all times and water levels above the Dam are not drawn down for the purpose of generating power. Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the Exemptee, or for short periods upon mutual agreement between the Exemptee, the U.S. Fish and Wildlife Service, and the New Hampshire Fish and Game Department.

⁶ The 7Q10 low flow is the lowest average 7 day flow that will occur, on average, once every ten years.

⁷ "Exemptee" in the USFWS terms and conditions letter is the same as "Applicant" in this Certification.

2. The Exemptee shall, within three (3) months of commencing generation, undertake a bypass reach assessment to determine the linear extent of habitat dewatered by the Project during periods of no spill. The assessment shall be developed in consultation with, and require approval by, the U.S. Fish and Wildlife Service. Based on results of the assessment, the U.S. Fish and Wildlife Service may determine that discharging flow over the Dam is warranted to protect instream habitat.
3. The Exemptee shall install trash racks that meet the following criteria: (1) have an approach velocity ≤ 2.0 fps (as measured 6 inches in front of the racks); (2) have clear spacing of 1 inch or less; and (3) extend full depth. The trash racks shall be installed and operational concurrent with Project start-up. The racks shall be required to be kept free of debris and maintained to design specifications.
4. The Exemptee shall conduct a post-operation water quality monitoring survey. The survey protocol shall be developed in consultation with, and require approval by, the U.S. Fish and Wildlife Service. Data shall be collected over a minimum of three (3) years, and shall be initiated the first low-flow season after Project start-up. If results indicate that the Project is not meeting water quality standards, mitigation measures may be required (e.g., releasing more flow over the Dam for re-aeration).
5. The Exemptee shall, within six (6) months of the date of issuance of an exemption from licensing, prepare and file for approval by the U.S. Fish and Wildlife Service, a plan for maintaining and monitoring run-of-river operation at the Project. The plan shall include a description of the mechanisms and structures that will be used, the level of manual and automatic operation, the methods to be used for recording data on run-of-river operation, an implementation schedule, and a plan for maintaining the data for inspection by the U.S. Fish and Wildlife Service, the Federal Energy Regulatory Commission, and the New Hampshire Department of Environmental Services. The plan shall be developed in consultation with, and require approval by, the U.S. Fish and Wildlife Service.
6. The Exemptee shall be responsible for designing, constructing, operating, maintaining and evaluating upstream and downstream fish passage facilities at this Project when notified by the U.S. Fish and Wildlife Service and/or the New Hampshire Fish and Game Department that such fishways are needed. All plans and schedules associated with the design, construction, operation, maintenance and evaluation of any prescribed fishways shall be developed by the Exemptee in consultation with, and require approval by, the U.S. Fish and Wildlife Service. The fishways shall be operated and maintained in accordance with the schedule identified by the agencies.
7. During refilling of the Project reservoir after flashboard replacement, Dam maintenance or emergency drawdown, the Exemptee shall operate the Project such that 90 percent of inflow to the Project is released below the Project and the impoundment is refilled on the remaining 10 percent of inflow. This refill procedure may be modified on a case-by-case basis with the prior approval of both the U.S. Fish and Wildlife Service and the New Hampshire Fish and Game Department.
8. The Exemptee shall notify the U.S. Fish and Wildlife Service in writing when the Project commences operation. Such notice shall be sent within 30 days of start-up to: Supervisor, New England Field Office, 70 Commercial Street, Suite 300, Concord, New Hampshire 03301. The Exemptee shall furnish the Service with a set of as-built drawings concurrent with filing said plans with the Federal Energy Regulatory Commission.
9. The Exemptee shall allow the U.S. Fish and Wildlife Service to inspect the Project area at any time while the Project operates under an exemption from licensing to monitor compliance with their terms and conditions.
10. The U.S. Fish and Wildlife Service reserves the right to add to and alter terms and conditions for this exemption as appropriate to carry out its responsibilities with respect to fish and wildlife resources. The Exemptee shall, within thirty (30) days of receipt, file with the Federal Energy Regulatory Commission any additional terms and conditions imposed by the U.S. Fish and Wildlife Service.
11. The Exemptee shall incorporate the aforementioned terms and conditions in any conveyance—by lease, sale or otherwise—of its interests so as to legally assure compliance with said conditions for as long as the Project operates under an exemption from licensing.

D-18. DES concurs with operating the Activity in an instantaneous run-of-river and maintaining a steady pond when power is generated and flows are within the operating range of the turbines as such actions will help to support Biological and Aquatic Community Integrity (Env-Wq 1703.19 – see C-19).

- D-19. With regards to whether or not there is a need to maintain a minimum flow in the 100-foot bypass channel, DES concurs with the USFWS's terms and condition letter (see D-17) that an assessment should be done after the Activity is operational to determine the linear extent of the dewatered habitat during periods of no spill. Results will determine if a discharge flow over the spillway is necessary to protect aquatic habitat and to support Biological and Aquatic Community Integrity (Env-Wq 1703.19 – see C-19).
- D-20. With regards to minimizing impingement of fish on trashracks and entrainment of fish into the turbines, DES concurs with the USFWS's terms and condition letter (see D-17) to install new trashracks that meet USFWS specifications. Properly designed trashracks will help to support Biological and Aquatic Community Integrity (Env-Wq 1703.19 – see C-19).
- D-21. To help ensure the Activity will not cause or contribute to surface water quality violations, DES concurs with the USFWS's terms and condition letter (see D-17) that requires the Applicant to develop a formal plan that details the equipment, systems, etc. that will monitor and record the information needed to verify compliance with the operational constraints specified for the Activity.
- D-22. During authorized drawdowns, a refill procedure is required to ensure adequate flow is maintained downstream to protect aquatic habitat and to support Biological and Aquatic Community Integrity (Env-Wq 1703.19 – see C-19). DES concurs with the USFWS's terms and condition letter (see D-17), that during refilling of the impoundment after flashboard replacement, Dam maintenance or emergency drawdown, 90 percent of inflow to the Dam shall be released downstream with the remaining 10 percent of inflow used to refill the impoundment.
- D-23. The NHFGD typically recommends a maximum drawdown rate of approximately six (6) inches per day to allow adequate time for aquatic organisms (including, but not limited to mussels), to move and stay sufficiently submerged as the water level gradually recedes.
- D-24. With regards to Fish Passage, DES concurs with USFWS's terms and condition letter (see D-17) that requires the Applicant to design, construct, operate, maintain and evaluate fish passage facilities when notified by the USFWS or the New Hampshire Fish and Game Department, when such fishways are needed.

E. WATER QUALITY CERTIFICATION CONDITIONS

Unless otherwise authorized by DES, the following conditions shall apply:

- E-1. **Compliance with Certification Conditions:** The Applicant shall operate and maintain the Activity to comply with the conditions of this Certification.
- E-2. **Compliance with Water Quality Standards:** The Activity shall not cause or contribute to a violation of surface water quality standards.
- E-3. **Modification of Certification:** The conditions of this Certification may be amended and additional terms and conditions added as necessary to ensure

compliance with New Hampshire surface water quality standards, when authorized by law, and after notice and opportunity for hearing.

- E-4. **Proposed Modifications to the Activity:** The Applicant shall consult with and receive prior written approval from DES regarding any proposed modifications to the Activity that could have a significant or material effect on the conditions of this Certification including any changes to project operation or approved plans required by this Certification. If necessary, DES may modify the Certification in accordance with condition E-3 of this Certification.
- E-5. **Reopening of FERC Order:** DES may, at any time, request that FERC reopen the Order of Exemption for the Activity to consider modifications to the Order if necessary to ensure compliance with the conditions of this Certification.
- E-6. **Compliance Inspections:** In accordance with applicable laws, the Applicant shall allow DES to inspect the Activity and affected surface waters to monitor compliance with the conditions of this Certification.
- E-7. **Posting of Certification and Operation and Compliance Monitoring Plan:** A copy of this Certification and the approved Operation and Compliance Monitoring Plan (OCMP – see E-16) shall be prominently posted within the powerhouse within seven days of receiving written approval of the OCMP from DES.
- E-8. **Transfer of Certification:** Should this Certification be transferred to a new owner, contact information for the new owner (including name, address, phone number and email) shall be provided to DES within 30 days of the transfer.
- E-9. **Run-of-River Flow⁸:** The Applicant shall operate the Activity in instantaneous run-of-river mode, whereby inflow to the Activity equals outflow from the Activity at all times and water levels upstream of the Dam are not drawn down for the purpose of generating power. Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the Applicant, or for short periods upon approval by DES, the USFWS and the NH Fish and Game Department (NHFGD).
- E-10. **Bypass Reach Flow⁸:** The Applicant shall, within three (3) months of commencing generation, undertake a bypass reach assessment to determine the linear extent of habitat dewatered by the Activity during periods of no spill. The assessment shall be developed in consultation with and require approval by DES, NHFGD and USFWS. The Applicant shall then implement the approved plan and submit results to DES, NHFGD and USFWS. If DES determines that a minimum flow in the bypass reach is necessary, the minimum bypass reach flow requirements shall be included in the Operation and Compliance Monitoring Plan (see E-16) and shall become a condition of this 401 Certification. Exceptions to the above may be allowed if required by operating emergencies beyond the control of the Applicant, or for short periods upon approval by DES.

⁸ This condition is based on one of the terms and conditions in USFWS's letter of May 21, 2015 (see D-17), with some modifications.

- E-11. **Flow During Impoundment Refill:** The Applicant shall comply with term and condition #7 of the USFWS's terms and conditions letter of May 21, 2015 (see D-17). While the impoundment is being refilled, bypass flow requirements (see E-10) shall be met. Any proposed modifications to the refill procedures shall also require prior approval of DES.
- E-12. **Impoundment Water Level:** Water levels shall be maintained at or above the top of flashboards when the flashboards are in place or at or above the top of the fixed dam crest when flashboards are not in place. If a minimum bypass reach flow is determined to be necessary (see E-10), the impoundment shall be maintained at or above the elevations that are determined necessary to pass the minimum bypass flow with or without flashboards in place. Fluctuations in impoundment water level due to operation of the Activity shall be minimized to the maximum extent practicable. During maintenance drawdowns, the impoundment shall not be drawn down more than twelve inches below the fixed dam crest. Exceptions to the above may be allowed if required by operating emergencies beyond the control of the Applicant or for short periods upon approval by DES.
- E-13. **Trash Racks:** The Applicant shall comply with term and condition #3 of the USFWS's terms and conditions letter of May 21, 2015 (see D-17).
- E-14. **Drawdown Rates:** When drawing the water level in the impoundment down for maintenance or an emergency drawdown, the Applicant shall strive to achieve, to the extent practicable, a gradual drawdown rate of six (6) inches per day or less. Exceptions to the above may be allowed if required by operating emergencies beyond the control of the Applicant or for short periods upon approval by DES.
- E-15. **Post Operation Water Quality Monitoring Survey:** The Applicant shall conduct a post-operation water quality monitoring survey. The survey protocol shall be developed in consultation with, and require approval by, DES and shall be submitted within 6 months of the date of issuance of this Certification. As a minimum, parameters shall include dissolved oxygen (concentration and percent saturation), water temperature and pH. Multi-parameter dataloggers shall be used to collect data on a continuous basis (i.e., every 15 minutes) for at least ten consecutive days during periods of relatively low flow and high water temperature. The protocol shall also include quality assurance/quality control provisions. Sampling shall commence the first low flow / high temperature season after start-up. Results from the first year will be used to determine the need for sampling in subsequent years. If results indicate that the Activity is causing or contributing to violations of surface water quality standards, DES may require implementation of mitigation measures (e.g., releasing more flow over the Dam for reaeration) and additional monitoring to confirm that mitigation measures have resulted in attainment of surface water quality standards.
- E-16. **Operation and Compliance Monitoring Plan (OCMP):**

- a. Prior to operation of the Activity, the Applicant shall obtain DES approval of an Operation and Compliance Monitoring Plan (OCMP). The OCMP shall describe in detail how the Activity will be operated and monitored to comply with this Certification. The Applicant shall then implement the approved plan.

The OCMP shall include the following:

- 1) A description of how the Activity will be operated and maintained to comply with run-of-river and other requirements of this Certification⁹;
 - 2) As-Built dimensions and elevations of all structures used to pass inflow from upstream to downstream of the dam including, but not limited to, the spillway (with and without flashboards), gates and notches.
 - 3) Procedures that will be implemented to comply with the conditions of this Certification as quickly as possible should it be found that the Activity is temporarily out of compliance, including notification of appropriate regulatory authorities;
 - 4) Methods for monitoring, recording and reporting impoundment water surface elevations, inflows, bypass flows, turbine flows and when power is generated, with monitoring and recording of data automated and collected continuously to the extent feasible;¹⁰
 - 5) A description of the mechanisms and structures that will be used, including equipment accuracy, frequency of measurement, the level of automation and any periodic maintenance and/or calibration necessary to ensure the devices work properly;
 - 6) How data will be recorded to verify proper operations and how these data will be maintained for inspection by DES and other resource agencies for the life of the Activity; and
 - 7) A schedule for when the plan will be implemented.
- b. The Applicant shall consult with DES, and receive DES approval of any proposed modifications to the OCMP. Any DES approved modifications to the OCMP shall be considered a part of this Certification. Proposed modifications shall not be implemented until approved by DES. Exceptions to the approved OCMP may be granted by DES on a case-by-case basis.
- c. The Applicant shall notify DES not more than 48 hours after any deviations from the OCMP. The notification shall include, to the extent known, an explanation as to why the deviations occurred, a description of corrective actions taken, and how long it will take until the operations will comply with the OCMP. The Applicant shall maintain a log of deviations and shall submit an annual summary of the deviations to DES for each calendar year by January 31 of the following year (i.e., the 2016 annual summary would be

⁹ DES may require calculations showing the estimated flow at various elevations for each structure used to pass inflow from upstream to downstream of the dam including, but not limited to, the spillway (with and without flashboards), gates and notches.

¹⁰ The OCMP shall include a description of how inflow will be calculated to comply with condition E-11 when the impoundment is being refilled.

due by January 31, 2017). The annual summary shall also include a summary of the of maintenance and emergency drawdowns in each impoundment for the year including the dates, duration, depth, and reason for each drawdown.

- E-17. **Fish Passage.** The Applicant shall comply with term and condition #6 of the USFWS's terms and conditions letter of May 21, 2015 to FERC (see D-17).
- E-18. **Compliance with Wetland Permits:** The Applicant shall comply with conditions in all DES Wetlands permits issued for the Activity. The conditions of the wetlands permit(s) shall become conditions of this 401 Certification. Should any conditions conflict, the certification or permit with the more stringent condition shall apply.
- E-19. **Water Conservation Plan:** Prior to construction of the Activity, the Applicant shall consult with the DES Water Conservation Program to determine if a water conservation plan and/or waiver is required for the Activity in accordance with Env-Wq 2101 (see C-29). If required, the Applicant shall submit a water conservation plan that meets the requirements of Env-Wq 2101 and receive DES approval of the plan by the time specified by the DES Water Conservation Program. The Applicant shall then implement the approved plan.
- E-20. **DES Water Use Registration and Reporting:** The Applicant shall register, measure, and report all withdrawals and discharges with the DES Water Use Registration and Reporting program in accordance with RSA 488:3 and its supporting regulations, Env-Wq 2102. Prior to construction of the Activity, the Applicant shall consult with the DES Water Use Registration and Reporting program to determine specific monitoring requirements for the Activity. The Applicant shall then implement the DES approved measuring and reporting requirements.

F. APPEAL

Any person aggrieved by this decision may appeal to the N.H. Water Council ("Council") by filing an appeal that meets the requirements specified in RSA 21-O:14 and the rules adopted by the Council, Env-WC 100-200. The appeal must be filed directly with the Council within 30 days of the date of this decision and must set forth fully every ground upon which it is claimed that the decision complained of is unlawful or unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council.

Information about the Council, including a link to the Council's rules, is available at <http://nhec.nh.gov/> (or more directly at <http://nhec.nh.gov/water/index.htm>). Copies of the rules also are available from the DES Public Information Center at (603) 271-2975.

If you have questions regarding this Certification, please contact Owen David at (603) 271-0699 or Owen.David@des.nh.gov

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November 30, 2015

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Eugene J. Forbes, P.E.

Director, DES Water Division

cc: Mellissa Grader, USFWS
Carol Henderson, NHFGD
Jeffrey Blecharczyk, North Country Inspector NHDES Wetlands Bureau
Charlie Ryan, Chair Ammonoosuc River Local Advisory Committee
Select board, Town of Northumberland, NH

152 FERC ¶ 62,113
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

5440 Hydro, Inc.

Project No. 13806-004

ORDER GRANTING EXEMPTION FROM LICENSING
(10 MW OR LESS)

(Issued August 14, 2015)

1. On July 28, 2014, as supplemented on November 28, 2014 and April 2, 2015, 5440 Hydro, Inc. (5440 Hydro or applicant) filed an application to exempt its proposed 600-kilowatt (kW) Brooklyn Dam Hydroelectric Project (Brooklyn Dam Project or project) from the requirements of Part I of the Federal Power Act (FPA).¹ The project will be located on the Upper Ammonoosuc River in Coos County, New Hampshire.² The project will not use or occupy any federal facilities or land. As discussed below, this order issues an exemption from licensing for the project.

BACKGROUND

2. On April 23, 2015, the Commission issued a notice accepting the application and indicating the application was ready for environmental analysis.³ The notice established

¹ The Commission is authorized to exempt from the licensing requirements of Part I of the FPA, small hydroelectric projects with an installed capacity of 10 megawatts or less (formerly 5 megawatts or less) that use for the generation of electricity either an existing dam (*i.e.*, one in existence on or before July 22, 2005) or a "natural water feature" without the need for any dam or impoundment. *See* sections 405 and 408 of the Public Utility Regulatory Policies Act of 1978, 16 U.S.C. §§ 2705 and 2708 (2012), *amended by* the Hydropower Regulatory Efficiency Act of 2013, Pub. L. No. 113-23, 127 Stat. 493 (2013) (amending, *inter alia*, section 405 to define "small hydroelectric power projects" as having an installed capacity that does not exceed 10 megawatts).

² The Upper Ammonoosuc River is a tributary of the Connecticut River, a navigable waterway of the United States. *See Concord Electric Company*, 4 F.P.C. 635 (1944). Because the project will be located on a stream over which Congress has jurisdiction under the commerce clause, affect interstate commerce through its connection to an interstate power grid, and involve post-1935 construction, it is required to be licensed (or exempted from licensing) by the Commission pursuant to section 23(b)(1) of the FPA. *See* 16 U.S.C. § 817 (2012).

³ 80 Fed. Reg. 24,910 (May 1, 2015).

May 25, 2015, as the deadline for filing motions to intervene, comments, recommendations, and terms and conditions.⁴ On May 21, 2015, the U.S. Department of the Interior (Interior) filed timely comments and terms and conditions. On April 23, 2015, and May 14, 2015, the New Hampshire Department of Environmental Services (NHDES) filed timely comments. No other filings were received in response to the notice.

3. An Environmental Assessment (EA) was prepared by Commission staff and is being issued concurrently with this order. The EA analyzes the effects of the proposed project and alternatives to it. The EA contains background information, analysis of impacts, and support for the requirements of this exemption from licensing. Based on the record of the proceeding, including the EA, granting an exemption from licensing for the Brooklyn Dam Project would not constitute a major federal action significantly affecting the quality of the human environment.

4. The comments and terms and conditions have been fully considered in determining whether, and under what conditions, to issue this exemption.

PROJECT DESCRIPTION

5. The Brooklyn Dam Project will use the water power potential of the existing 120-foot-long, 14-foot-high timber crib Brooklyn dam. The entire 120-foot length of the dam functions as a spillway and has a crest elevation of 878.73 feet National Geodetic Vertical Datum of 1929 (NGVD1929).⁵ Adjacent to the dam is an existing 43-foot-long floodgate structure with four 6.9-foot-wide, 10-foot-high floodgates. With the existing 2.50-foot-high flashboards installed on the 120-foot-long spillway, the dam creates a 26-acre impoundment with a normal water surface elevation of 881.23 feet NGVD1929.

6. In addition to the dam and impoundment, the project includes an existing 100-foot-long, 45-foot-wide forebay, with three 15.2-foot-wide, 15.5-foot-high trashracks

⁴ The Commission's Rules of Practice and Procedures provide that, if a filing falls on a Saturday, Sunday, holiday, or other day when the Commission is not open for business, the filing deadline does not end until the close of business on the next business day. 18 C.F.R. § 385.2007(a)(2)(2014). The filing deadline established by the notice was 30 days from issuance of the notice (i.e., May 23, 2015), which was a Saturday; therefore, by rule, the filing deadline was the close of business Monday, May 25, 2015.

⁵ In a letter filed on April 23, 2015, New Hampshire Department of Environmental Services stated that 5440 Hydro removed a non-operating sluice gate located adjacent to the spillway that resulted in extending the spillway length from 113 to 120 feet.

with 1.0-inch clear bar spacings.⁶ When the project is operating, water will pass through the trashracks and forebay structure into an existing 45-foot-long, 48-foot-tall, and 23-foot-high brick and concrete powerhouse containing two new 300-kW Kaplan turbine-generating units for a total installed capacity of 600 kW. Water from the turbines will be discharged into an existing 48-foot-long, 45-foot-wide tailrace. Power will be transmitted through a new 100-foot-long, 480-volt underground transmission line connecting the powerhouse electrical panel to three new single-phased transformers. A new 300-foot-long, 35.4-kilovolt above-ground transmission line will transmit power from the transformers to the regional distribution grid.

7. The proposed project boundary encloses all the project facilities described above.
8. 5440 Hydro proposes to operate the project in a run-of-river mode, whereby outflow from the project equals inflow at all times, and water levels in the impoundment will not be drawn down for electric generation. When operating, the project will bypass a 100-foot-long reach of the Upper Ammonoosuc River from the dam to the downstream end of the tailrace.
9. The two 300-kW turbines will each have a minimum hydraulic capacity of 33 cubic feet per second (cfs) and a maximum hydraulic capacity of 315 cfs. At flows less than 33 cfs (the minimum operating capacity of the project), the project will not operate and all flow will pass over the spillway or flashboards. At flows between 33 cfs and 630 cfs (the maximum operating capacity of the project), the project will operate and no flow will pass over the spillway or flashboards. At flows greater than 630 cfs, the project will operate at its maximum capacity and all remaining flow will pass over the spillway or flashboards.
10. The project will have an estimated average annual generation of 2,800 megawatt-hours.

FPA SECTION 30(c) CONDITIONS

11. Pursuant to section 405 of Public Utility Regulatory Policies Act (PURPA),⁷ 10-MW exemptions are subject to the requirements of section 30(c) of the FPA,⁸ which

⁶ 5440 Hydro will modify the existing trashracks to: (1) provide an approach velocity of 2.0 feet per second or less; (2) provide 1-inch or less clear bar spacing, and (3) extend the trashracks to the full depth of the intake opening. *See* Application for Exemption from Licensing, Project No. 13806-004, (filed July, 28, 2014), Exhibit F, sheet 2, general notes, item 6.

⁷ 16 U.S.C. § 2705(b) (2012).

provides, among other things, that the Commission “shall include in any such exemption . . . such terms and conditions as the Fish and Wildlife Service, National Marine Fisheries Service, and the State [fish and wildlife] agency each determine are appropriate to prevent loss of, or damage to, [fish and wildlife] resources . . .” Article 2 of all exemptions requires compliance with the terms and conditions filed by federal and state fish and wildlife agencies to protect fish and wildlife resources (section 30(c) conditions).⁹

12. On May 20, 2015, Interior submitted 11 section 30(c) conditions that require the exemptee to: (1) operate the project in an instantaneous run-of-river mode; (2) conduct an assessment of dewatered habitat in the bypassed reach; (3) install full-depth trashracks with an approach velocity of 2.0 feet-per-second or less and a 1-inch or less clear bar spacing; (4) conduct water quality monitoring for a minimum of 3 years after the start of project operation; (5) develop a plan for monitoring and maintaining run-of-river operation; (6) construct upstream and downstream fish passage facilities when notified by the agencies that such facilities are necessary; (7) pass 90 percent of inflow downstream during refilling of the impoundment after flashboard failure, maintenance, or emergency drawdowns; (8) notify FWS when the project commences operation and provide a set of as-built drawings; (9) allow FWS to inspect the project while it operates; (10) implement any additional or altered conditions required by Interior; and (11) incorporate in any conveyance (by lease or sale) of the project, the terms and conditions of the exemption.

13. The section 30(c) conditions are set forth in Appendix A of this order and are incorporated into the exemption by ordering paragraph (A).

THREATENED AND ENDANGERED SPECIES

14. Section 7 of the Endangered Species Act¹⁰ requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of the critical habitat of such species.

15. Two federally listed species, the Canada lynx (threatened) and the Northern long-eared bat (threatened), occur in Coos County, NH;¹¹ however, neither species has been documented in the immediate project area and there is no known habitat for these species

⁸ 16 U.S.C. § 823a(c) (2012).

⁹ See 18 C.F.R. § 4.106 (2014).

¹⁰ 16 U.S.C. § 1536(a) (2012).

¹¹ <http://ecos.fws.gov/ipac/>

in the project area. In the EA, Commission staff concludes that because these species are not known to inhabit the project area and the construction, operation, and maintenance of the proposed project would not substantially alter the existing environment, issuing an exemption order for the proposed project would have no effect on threatened or endangered species.¹² No further action under the Endangered Species Act is required.

NATIONAL HISTORIC PRESERVATION ACT

16. Under section 106 of the National Historic Preservation Act¹³ and its implementing regulations,¹⁴ federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the State Historic Preservation Office (SHPO) to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

17. The Brooklyn dam was constructed in 1912 to provide hydro-mechanical power to local textile mills. In 1930, hydroelectric generation facilities were installed at the project to provide power to the Groveton Paper Mill. These facilities were operated until the generating equipment was destroyed during a flood in the 1960's.

18. By letter dated January 31, 2014, the New Hampshire Division of Historical Resources (New Hampshire SHPO) indicated that issuing an exemption from licensing for the proposed project would have "no potential to cause effects" on historic properties.¹⁵ The EA concludes that because there are no historic properties within the project's area of potential affects, issuing an exemption from licensing for the project will have no adverse effect on historic properties.¹⁶

19. However, the exemptee may occasionally need to implement project modifications not specifically authorized or prohibited by this exemption, and these modifications could

¹² EA at 10.

¹³ Section 106 of the National Historic Preservation Act of 1966, as amended, 54 U.S.C. § 306108, Pub. L. No. 113-287, 128 Stat. 3188 (2014).

¹⁴ 36 C.F.R. Part 800 (2014).

¹⁵ A copy of the New Hampshire SHPO letter was filed on February 10, 2014.

¹⁶ EA at 9.

affect cultural resources.¹⁷ Therefore, to ensure that cultural resources are not adversely affected by implementing project modifications, Article 26 requires the exemptee to consult with the New Hampshire SHPO prior to conducting any maintenance activities, land-clearing or land-disturbing activities, or changes to project operation or facilities that do not require Commission approval but could affect cultural resources.

20. While the project will have no adverse effect on known historic properties, cultural resources could be discovered during the course of constructing or operating the project; therefore, Article 27 requires the exemptee to stop work and consult with the New Hampshire SHPO if previously unidentified cultural resources are discovered during project construction or operation.

ADMINISTRATIVE PROVISIONS

21. All projects exempted from licensing under Part I of the FPA are subject to standard terms and conditions. These terms and conditions are included as standard Articles 1 through 9. Special Articles 10 through 27, which provide for administration of the exemption from licensing and dam safety, are also included in this exemption.

A. Annual Charges

22. The Commission collects annual charges from exemptees for the administration of its hydropower program.¹⁸ However, as explained in Article 10, under the regulations currently in effect, projects with an authorized installed capacity of 1,500 kW or less, like this project, are not currently assessed an annual charge.

B. Start of Construction

23. Standard Article 3 provides that the Commission may revoke the exemption if actual construction of the project's generating facilities has not begun within two years or has not been completed within four years from the date this exemption is granted. Additionally, Article 11 is included in this exemption and states that the Commission may terminate the exemption if the construction of any other project works described in this exemption has not begun within two years or is not completed within four years of the date this exemption is issued.¹⁹

¹⁷ Modifications could include replacing broken windows, roof or siding repairs, or landscaping. EA at 23.

¹⁸ See 18 C.F.R. § 11.1(b)(2) (2014).

¹⁹ The start-of-construction deadline in standard Article 3 (contained in the attached Form E-2) refers to the project's generating facilities. The deadline in special
(continued)

C. Exhibit F and G Drawings

24. The Commission requires exemptees to file sets of approved project drawings in electronic format. The six Exhibit F drawings F-1 through F-6 filed on November 28, 2014, are approved and made part of this exemption. The approved Exhibit F drawings must be filed in electronic file format as required by sections 4.39 and 4.41 of the Commission's regulations (Article 12).²⁰

25. The Exhibit G drawing G-1 filed on November 28, 2014, is not stamped by a registered land surveyor as required by section 4.39(a) of the Commission's regulations. Therefore, Exhibit G is not approved and not made part of this exemption. Article 13 requires the exemptee to file, within 45 days of issuance of this order, a revised Exhibit G drawing that is stamped by a registered land surveyor.

D. Project Safety

26. Ensuring the safety of all jurisdictional dams is an important public interest function of the Commission. A dam failure could result in property damage and could also result in significant negative environmental effects. In the interest of ensuring the safety of this project, Article 14 is included in this exemption and requires the exemptee to comply with Part 12 of the Commission's regulations, which governs the safety of water power projects and project works.²¹

E. Operation and Maintenance

27. Ensuring that the exempted project is operated and maintained as required by this exemption is an important public interest function of the Commission. Therefore, Article 15 is included in this exemption and states that if the exemptee causes or allows essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, the Commission will deem it the exemptee's intent to surrender the exemption.

F. Exemptee Liability

28. Section 10(c) of the FPA provides that licensees, and not the United States, are liable for "damages occasioned to the property of others by the construction,

Article 11 applies to on-the-ground construction of other project facilities.

²⁰ 18 C.F.R. §§ 4.39 and 4.41(g)-(h) (2014).

²¹ 18 C.F.R. Part 12 (2014). Special Article 13 is broader than standard Article 8 (contained in the attached Form E-2), which essentially is subsumed in special Article 13.

maintenance, or operation of the project works ...”²² To clarify that exemptees are similarly liable, Article 16 is included in this exemption and states that the exemptee is liable for damages to the property of others.

G. Conservation and Development of Fish and Wildlife Resources

29. Changes in environmental conditions or identification of previously unknown project effects on fish and wildlife resources may warrant changes to project requirements to protect fish and wildlife. Therefore, Article 17 provides that the Commission may on its own motion, or on the recommendation of the Secretaries of the Interior or Commerce or the state fish and wildlife agencies, require the exemptee to construct, maintain, and operate facilities for the conservation and development of fish and wildlife resources.

H. Project Financing

30. To ensure that there are sufficient funds available for project construction, operation, and maintenance, Article 18 requires the exemptee to file for Commission approval documentation of project financing for the construction, operation, and maintenance of the project at least 90 days before starting project construction.

I. Property Rights

31. Pursuant to 18 C.F.R. § 4.31(c)(2)(ii), an applicant for exemption is required to demonstrate that, at the time it files its exemption application, it has sufficient rights to any non-federal land and facilities required for the construction and operation of the project. 5440 Hydro’s application contains documentation that it has the necessary property rights to develop and operate the project.²³ However, because an exemption is

²² 16 U.S.C. § 803(c) (2012).

²³ 5440 Hydro’s application includes a fully executed contract of sale whereby Ampersand Brooklyn Dam Hydro, LLC (Ampersand Hydro) acquired all rights, title, and interest in the Brooklyn Dam site located on the Upper Ammonoosuc River, including: (a) the bed of the river; (b) the footbridge just south of the Brooklyn Dam that crosses the river; (c) the powerhouse; (d) land on the Brooklyn Street side of the river; (e) rights of way to the now Public Service Company of New Hampshire 34.5 kV power line and poles; and (f) appurtenant water rights, including river, water, and flowage rights associated with the Brooklyn Dam pursuant to its historic use for hydroelectric generation. See Application for Exemption from Licensing, Project No. 13806-004, Appendix B (filed July 28, 2014). 5440 Hydro’s application also includes a fully executed five year operating lease agreement between Ampersand Hydro and 5440 Hydro whereby Ampersand Hydro agrees to lease to 5440 Hydro all of its rights, title,

(continued)

issued in perpetuity, Article 19 is included in this exemption and reserves the Commission's authority to terminate the exemption if in the future the exemptee fails to maintain sufficient rights to comply with the terms and conditions of the exemption.

J. Commission Approval of Resource Plans, Notification, and Filing of Reports and Amendments

32. Certain section 30(c) conditions (Appendix A) either do not require the exemptee to file plans with the Commission for approval; do not require the exemptee to file reports with the Commission; require notice to Interior, but not the Commission, of emergencies and other activities; or contemplate unspecified long-term changes to project operation or facilities without prior Commission approval. Therefore, Article 20 requires the exemptee to file plans with the Commission for approval, file reports with the Commission, notify the Commission of planned and unplanned deviations from the exemption requirements, and file amendment applications, as appropriate.

K. Review of Final Plans and Specifications

33. To ensure the exemptee is constructing and operating a safe and adequate project, Articles 21 through 25 require the exemptee to provide the Commission's Division of Dam Safety and Inspections (D2SI) – New York Regional Office, for its review and approval: contract plans and specifications, including a soil erosion and sediment control plan; cofferdam and deep excavation construction drawings, as appropriate; as-built drawings; a public safety plan; and project modifications resulting from environmental requirements.

34. The exemptee may not begin any construction until the D2SI – New York Regional Engineer has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized, in writing, the start of construction.

The Director orders:

(A) Effective the date this order is issued, the Brooklyn Dam Hydroelectric Project is exempted from Part I of the Federal Power Act (FPA), subject to the conditions submitted by the U.S. Department of the Interior under section 30(c) of the FPA, as those conditions are set forth in Appendix A of this order and the articles specified below.

and interests in the project. *See id* at Appendix C. Under section 4.30(b)(28) of the regulations, 18 C.F.R. 4.30(b)(28)(2015), sufficient property rights for an exemption may be in the form of a lease.

(B) The project consists of:

(1) All lands, to the extent of the exemptee's interests in these lands, enclosed by the project boundary as described in the project description section of this order:

(2) The following project works: (1) an existing 120-foot-long and 14-foot-high, timber crib dam and spillway with a crest elevation 878.73 feet NGVD1929 that includes 2.50-foot-high flashboards with a crest elevation 881.23 feet NGVD1929; (2) a 43-foot-long floodgate structure with four 6.9-foot-wide, 10-foot-high floodgates; (3) an existing 26-acre impoundment having a gross storage capacity of 52-acre-feet at elevation 881.23 feet NGVD1929; (4) a new automatic controller and water level sensor; (5) an existing 100-foot-long, 45-foot-wide forebay with three 15.2-foot-wide, 15.5-foot-high trashracks with 1.0-inch clear bar spacing; (6) an existing 9-foot-wide, 9-foot-high side waste gate; (7) an existing 45-foot-long, 48-foot-wide, and 23-foot-high brick and concrete powerhouse that will contain two new 300-kilowatt (kW), Kaplan turbine-generating units for a total installed capacity of 600 kW; (8) an existing 40-foot-long, 15.78-foot-high tailrace training wall; (9) an existing 48-foot-long, 45-foot-wide tailrace; (10) a new 100-foot-long 480-volt underground transmission line connecting the powerhouse electrical panel to three new single-phase transformers; (11) a new 300-foot-long 35.4-kilovolt above-ground transmission line connecting the transformers to the regional distribution grid at utility pole number 384/15; and (12) appurtenant facilities.

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

Exhibit A: Pages 1 through 3 filed on November 28, 2014.

Exhibit F: The following Exhibit F drawings filed on November 28, 2014:

| <u>Exhibit F Drawing</u> | <u>FERC No. 13806-</u> | <u>Description</u> |
|--------------------------|------------------------|---|
| F-1 | 1 | Site Plan |
| F-2 | 2 | Powerhouse and gates Detail and Elevation |
| F-3 | 3 | End View And Spillway Section |
| F-4 | 4 | Maintenance gates Detail |
| F-5 | 5 | Trash racks Detail |
| F-6 | 6 | Side Spillway Flash Boards Detail |

(3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project, all portable property that may be employed in connection with the project, and all riparian or other rights that are necessary or appropriate in the operation

or maintenance of the project.

(C) The Exhibits A and F described above are approved and made part of the exemption.

(D) This exemption is also subject to the articles set forth in Form E-2 entitled Standard Terms and Conditions of Exemption from Licensing, as reproduced at the end of this order, and the following additional articles:

Article 10. Administrative Annual Charges. The exemptee must pay the United States annual charges, effective as of the start of project construction, as determined in accordance with the provisions of the Commission's regulations in effect from time to time, for the purpose of reimbursing the United States for the cost of administration of the Commission's hydropower program. The authorized installed capacity for that purpose is 600 kilowatts. Under the regulations currently in effect, projects with authorized installed capacities of less than or equal to 1,500 kilowatts will not be assessed an annual charge.

Article 11. Start of Construction. The Commission may terminate this exemption if the actual construction of any project works has not begun within two years or has not been completed within four years from the issuance date of this exemption. If an exemption is terminated under this article, the Commission will not accept from the prior exemption holder a subsequent application for exemption from licensing for the same project within two years of the termination.

Article 12. Exhibit F Drawings. Within 45 days of the date of issuance of this exemption, as directed below, the exemptee must file two sets of the approved exhibit drawings in electronic file format on compact disks with the Secretary of the Commission, ATTN: OEP/DHAC.

(a) Digital images of the approved exhibit drawings must be prepared in electronic format. Prior to preparing each digital image, the FERC Project-Drawing Number (i.e., P-13806-1 through P-13806-6) must be shown in the margin below the title block of the approved drawing. Exhibit F drawings must be segregated from other project exhibits and identified as CEII material under 18 C.F.R. § 388.113(c). Each drawing must be a separate electronic file, and the file name must include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this exemption, and file extension in the following format [P-13806-1, F-1, MM-DD-YYYY.TIF]. All digital images of the exhibit drawings must meet the following format specification:

IMAGERY – black & white raster file
FILE TYPE – Tagged Image File Format, (TIFF) CCITT Group 4
(also known as T.6 coding scheme)

RESOLUTION – 300 dots per inch (dpi) desired, (200 dpi minimum)
DRAWING SIZE FORMAT – 22” x 24” (minimum), 24” x 36”
(maximum)
FILE SIZE – less than 1 megabyte desired

Article 13. *Exhibit G Drawing.* Within 45 days of issuance of this exemption, the exemptee must file, for Commission approval, a revised Exhibit G drawing that is stamped by a registered land surveyor. The Exhibit G drawing must comply with sections 4.39 and 4.41 of the Commission’s regulations.

Article 14. *Part 12 Requirements.* This project is subject to Part 12 of the Commission’s regulations, 18 C.F.R. Part 12 (as they may be amended from time to time). For the purposes of applying these provisions of Part 12, the exempted project is deemed to be a licensed project development and the owner of the exempted project is deemed to be a licensee.

Article 15. *Operation and Maintenance.* The Commission may determine that the exemptee has impliedly surrendered this exemption if essential project property is removed or destroyed or becomes unfit for use, without adequate replacement; or if the project is abandoned or good faith project operation or maintenance is discontinued; or if the exemptee refuses or neglects to comply with the terms of the exemption and the lawful orders of the Commission.

Article 16. *Liability.* This exemption is subject to the provisions of section 10(c) of the Federal Power Act, 16 U.S.C. § 803(c) (2012). That section provides that the exemptee must be liable for all damages occasioned to the property of others by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto, constructed under this exemption; and in no event shall the United States be liable therefore.

Article 17. *Conservation and Development of Fish and Wildlife Resources.* The exemptee must, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior, the Secretary of Commerce, or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 18. *Documentation of Project Financing.* At least 90 days before starting construction, the exemptee must file with the Commission, for approval, the exemptee’s documentation for the project financing. The documentation must show that the exemptee has acquired the funds, or commitment for funds, necessary to construct the project in accordance with this order. The documentation must include, at a minimum,

financial statements, including a balance sheet, income statement, and a statement of actual or estimated cash flows which provide evidence that the exemptee has sufficient assets, credit, and projected revenues to cover project construction, operation, and maintenance expenses, and any other estimated project liabilities and expenses.

The financial statements must be prepared in accordance with generally accepted accounting principles and signed by an independent certified public accountant. The exemptee must not commence project construction until the filing is approved.

Article 19. Property Rights. The Commission reserves the right to require the exemptee to obtain additional property rights, if such rights become necessary to develop, operate, or maintain the project or to achieve compliance with the terms and conditions of the exemption. The Commission may terminate this exemption if, at any time, the exemptee does not hold sufficient property rights in the land or project works necessary to develop, maintain, and operate the project.

Article 20. Commission Approval, Reporting, Notification, and Filing of Amendments.

(a) Requirement to File Plan for Commission Approval

Condition 5 of the U.S. Department of the Interior's (Interior) conditions issued pursuant to section 30(c) of the Federal Power Act (Appendix A) requires the exemptee to prepare a plan for maintaining and monitoring run-of-river operation, but does not require that the plan be submitted to the Commission for approval. Within 6 months of issuance of this exemption and at least 3 months prior to commencing project operation, the exemptee must file the plan for Commission approval.

The exemptee must include with the plan, documentation that the plan has been approved by Interior's Fish and Wildlife Service (FWS). The Commission reserves the right to make changes to the plan. Upon Commission approval, the plan becomes a requirement of the exemption, and the exemptee must implement the plan, including any changes required by the Commission.

(b) Requirement to File Reports

Two measures in the section 30(c) conditions (Appendix A) require the exemptee to provide information or reports to FWS that document compliance with requirements of this exemption or could result in changes to project facilities or operations. The exemptee also must file this information with the Commission. These reports are listed below.

| Interior 30(c) condition no. | Description | Due date |
|---------------------------------|-------------|----------|
|---------------------------------|-------------|----------|

| | | |
|---|--|--|
| 2 | Dewatered habitat assessment | Within 3 months of completion of the assessment and no later than 24 months from the issuance date of this order |
| 4 | Post-operation water quality monitoring survey | Within 3 months of completion of the third year of the survey and no later than 54 months from the issuance date of this order |

The exemptee must submit to the Commission documentation of any consultation, and copies of any comments and recommendations made by Interior in connection with each report. The Commission reserves the right to require changes to project operations or facilities based on the information contained in the report and any other available information.

(c) Requirement to Notify Commission of Planned and Unplanned Deviations from Exemption Requirements

Various section 30(c) conditions allow the exemptee to temporarily modify project operation under certain conditions. The exemptee must notify the Commission according to the schedule provided below.

| Interior 30(c) condition no. | Notification requirement | Due date |
|------------------------------|---|---|
| 1 | Notification of temporary modification of project operation | Within 10 days of each occurrence |
| 7 | Notification of temporary refill procedure modification | Within 10 days of each occurrence |
| 8 | Notification of when the project commences operation | Within 30 days of commencement of project operation |

(d) Requirement to File Amendment Applications

Some section 30(c) conditions contemplate FWS ordering unspecified long-term changes to project operations or facilities based on new information or results of studies or monitoring required by the conditions, but do not require Commission approval for such changes (e.g., operational changes to mitigate for low dissolved oxygen, construction and operation of upstream and downstream fish passage facilities). Such changes may not be implemented without prior Commission authorization granted after the filing of an application to amend the exemption.

Article 21. Commission's Review of Contract Plans and Specifications. At least 60 days prior to the start of any construction, the exemptee must submit one copy of its plans and specifications and a supporting design document to the Commission's Division of Dam Safety and Inspections (D2SI) – New York Regional Engineer, and two copies to the Commission (one of these must be a courtesy copy to the Director, D2SI). The submittal to the D2SI – New York Regional Engineer must also include as part of preconstruction requirements: a Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, and Soil Erosion and Sediment Control Plan. The exemptee may not begin any construction activities until the D2SI – New York Regional Engineer has reviewed and commented on the plans and specifications, determined that all preconstruction requirements have been satisfied, and authorized the start of construction.

Article 22. Cofferdam and Deep Excavation Construction Drawings. Should construction require cofferdams or deep excavation, the exemptee must: (1) have a Professional Engineer who is independent from the construction contractor, review and approve the design of contractor-designed cofferdams and deep excavations prior to the start of construction; and (2) ensure that construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days before starting construction of any cofferdams or deep excavations, the exemptee must submit one copy to the Commission's Division of Dam Safety and Inspections (D2SI) – New York Regional Engineer and two copies to the Commission (one of these copies must be a courtesy copy to the Director, D2SI) of the approved cofferdam and deep excavation construction drawings and specifications, and the letters of approval.

Article 23. As-built Drawings. Within 90 days of completion of construction of the facilities authorized by this exemption, the exemptee must file for Commission approval, revised Exhibits A, F, and G, as applicable, to describe and show those project facilities as built. A courtesy copy must be filed with the Commission's Division of Dam Safety and Inspections (D2SI) – New York Regional Engineer; the Director, D2SI; and the Director, Division of Hydropower Administration and Compliance.

Article 24. Project Modification Resulting From Environmental Requirements. If environmental requirements under this exemption require modifications to the project that may affect project works or operations, the exemptee must consult with the Commission's Division of Dam Safety and Inspections (D2SI) – New York Regional Engineer. Consultation must allow sufficient review time for the Commission to ensure that the proposed work does not adversely affect the project works, dam safety, or project operation.

Article 25. Public Safety Plan. Within 60 days of the issuance date of the exemption, the exemptee must submit one copy to the Commission's Division of Dam

Safety and Inspections (D2S1) – New York Regional Engineer and two copies to the Commission (one of these copies must be a courtesy copy to the Commission’s Director, D2SI) of a Public Safety Plan. The plan must include an evaluation of public safety concerns at the project site and assess the need for the installation of safety devices or other safety measures. The submitted plan must include a description of all public safety devices and signage, as well as a map showing the location of all public safety measures. For guidance on preparing public safety plans the exemptee can review the *Guidelines for Public Safety at Hydropower Projects* on the FERC website.

Article 26. Protection of Cultural Resources. Prior to implementing any project modifications not specifically authorized by this exemption, including but not limited to maintenance activities, land-clearing or land-disturbing activities, or changes to project operation or facilities, the exemptee must consult with the New Hampshire Division of Historical Resources (New Hampshire SHPO) to determine the effects of the activities and the need for any cultural resource studies or measures. If no studies or measures are needed, the exemptee must file with the Commission documentation of its consultation with the New Hampshire SHPO.

If a project modification is determined to affect a historic property the exemptee must file for Commission approval a historic properties management plan (HPMP) prepared by a qualified cultural resource specialist after consultation with the New Hampshire SHPO. In developing the HPMP, the exemptee must use the Advisory Council on Historic Preservation and the Commission’s *Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects*, dated May 20, 2002. The HPMP must include the following items: (1) a description of each historic property; (2) a description of the potential effect on each historic property; (3) proposed measures for avoiding or mitigating adverse effects; (4) documentation of the nature and extent of consultation; and (5) a schedule for implementing mitigation and conducting additional studies. The Commission reserves the right to require changes to the HPMP.

The exemptee must not implement any project modifications, other than those specifically authorized in this exemption, until informed by the Commission that the requirements of this article have been fulfilled.

Article 27. Protection of Undiscovered Cultural Resources. If the exemptee discovers previously unidentified cultural resources during the course of constructing, maintaining, or operating project works or other facilities at the project, the exemptee must stop all land-clearing and land-disturbing activities in the vicinity of the resource and consult with the New Hampshire Division of Historical Resources (New Hampshire SHPO) to determine the need for any cultural resource studies or measures. If no studies or measures are needed, the exemptee must file with the Commission documentation of its consultation with the New Hampshire SHPO.

If a discovered cultural resource is determined to be eligible for the National Register of Historic Places (National Register), the exemptee must file for Commission approval a historic properties management plan (HPMP) prepared by a qualified cultural resource specialist after consultation with the New Hampshire SHPO. In developing the HPMP, the exemptee must use the Advisory Council on Historic Preservation and the Commission's *Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects*, dated May 20, 2002. The HPMP must include the following items: (1) a description of each discovered property that is eligible to be listed in the National Register; (2) a description of the potential effect on each discovered property; (3) proposed measures for avoiding or mitigating adverse effects; (4) documentation of the nature and extent of consultation; and (5) a schedule for implementing mitigation and conducting additional studies. The Commission reserves the right to require changes to the HPMP.

The exemptee must not resume land-clearing or land-disturbing activities in the vicinity of a cultural resource discovered during construction, until informed by the Commission that the requirements of this article have been fulfilled.

(E) The exemptee must 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.

(F) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 8251 (2012), and section 385.713 of the Commission's regulations, 18 C.F.R. § 385.713 (2014). The filing of a request for rehearing does not operate as a stay of the effective date of this exemption or of any other date specified in this order. The exemptee's failure to file a request for rehearing shall constitute acceptance of this order.

Ann F. Miles
Director
Office of Energy Projects

Form E-2

FEDERAL ENERGY REGULATORY COMMISSION

Section 4.106 - Standard Terms and Conditions of Exemption from Licensing

Any exemption from licensing granted under this subpart for a small hydroelectric power project is subject to the following standard terms and conditions:

Article 1. The Commission reserves the right to conduct investigations under sections 4(g), 306, 307, and 311 of the Federal Power Act with respect to any acts, complaints, facts, conditions, practices, or other matters related to the construction, operation, or maintenance of the exempt project. If any term or condition of the exemption is violated, the Commission may revoke the exemption, issue a suitable order under section 4(g) of the Federal Power Act, or take appropriate action for enforcement, forfeiture, or penalties under Part III of the Federal Power Act.

Article 2. The construction, operation, and maintenance of the exempt project must comply with any terms and conditions that the United States Fish and Wildlife Service and any state fish and wildlife agencies have determined are appropriate to prevent loss of, or damage to, fish or wildlife resources or to otherwise carry out the purposes of the Fish and Wildlife Coordination Act, as specified in Exhibit E of the application for exemption from licensing or in the comments submitted in response to the notice of the exemption application.

Article 3. The Commission may revoke this exemption if actual construction of any proposed generating facilities has not begun within two years or has not been completed within four years from the date on which this exemption was granted. If an exemption is revoked under this article, the Commission will not accept from the prior exemption holder a subsequent application for exemption from licensing or a notice of exemption from licensing for the same project within two years of the revocation.

Article 4. This exemption is subject to the navigation servitude of the United States if the project is located on navigable waters of the United States.

Article 5. This exemption does not confer any right to use or occupy any Federal lands that may be necessary for the development or operation of the project. Any right to use or occupy any Federal lands for those purposes must be obtained from the administering Federal agencies. The Commission may accept a license application by any qualified license applicant and revoke this exemption, if any necessary right to use or occupy Federal lands for those purposes has not been obtained within one year from the date on which this exemption was granted.

Article 6. In order to best develop, conserve, and utilize in the public interest the water resources of the region, the Commission may require that the exempt facilities be modified in structure or operation or may revoke this exemption.

Article 7. The Commission may revoke this exemption if, in the application process, material discrepancies, inaccuracies, or falsehoods were made by or on behalf of the applicant.

Article 8. Any exempted small hydroelectric power project that utilizes a dam that is more than 33 feet in height above streambed, as defined in 18 C.F.R. § 12.31(c) of this chapter, impounds more than 2,000 acre-feet of water, or has a significant or high hazard potential, as defined in 33 C.F.R. Part 222, is subject to the following provisions of 18 C.F.R. Part 12, as it may be amended:

- (1) Section 12.4(b)(1)(i) and (ii), (b)(2)(i) and (iii), (b)(iv), and (b)(v);
- (2) Section 12.4(c);
- (3) Section 12.5;
- (4) Subpart C; and
- (5) Subpart D.

For the purposes of applying these provisions of 18 C.F.R. Part 12, the exempted project is deemed to be a licensed project development and the owner of the exempted project is deemed to be a licensee.

Article 9. Before transferring any property interests in the exempt project, the exemption holder must inform the transferee of the terms and conditions of the exemption. Within 30 days of transferring the property interests, the exemption holder must inform the Commission of the identity and address of the transferee.

APPENDIX A

Conditions submitted under section 30(c) of the FPA by the U.S. Department of the Interior on May 21, 2015.

1. The Exemptee shall operate the project in an instantaneous run-of-river mode, whereby inflow to the project will equal outflow from the project at all times, and water levels above the dam are not drawn down for the purpose of generating power. Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the Exemptee, or for short periods upon mutual agreement between the Exemptee, the U.S. Fish and Wildlife Service, and the New Hampshire Fish and Game Department.
2. The Exemptee shall within three (3) months of commencing generation, undertake a bypass reach assessment to determine the linear extent of habitat dewatered by the project during periods of no spill. The assessment shall be developed in consultation with, and require approval by, the U.S. Fish and Wildlife Service. Based on results of the assessment, the U.S. Fish and Wildlife Service may determine that discharging flow over the dam is warranted to protect stream habitat.
3. The Exemptee shall install trashracks that meet the following criteria: (1) have an approach velocity ≤ 2.0 fps (as measured six inches in front of the racks); (2) have clear spacing of one inch or less; and (3) extend full depth. The trashracks shall be installed and operational concurrent with project start-up. The racks shall be required to be kept free of debris and maintained to design specifications.
4. The Exemptee shall conduct a post-operation water quality monitoring survey. The survey protocol shall be developed in consultation with, and require the approval by, the U.S. Fish and Wildlife Service. Data shall be collected over a minimum of three (3) years, and shall be initiated the first low-flow season after project start-up. If results indicate that the project is not meeting water quality standards, mitigation measures may be required (e.g., releasing additional flow over the dam for reaeration).
5. The Exemptee shall, within six (6) months of the date of issuance of an exemption from licensing, prepare and file for approval by the U.S. Fish and Wildlife Service, a plan for maintaining and monitoring run-of-river operation at the project.

The plan shall include a description of the mechanisms and structures that will be used, the level of manual and automatic operation, the methods to be used for recording data on run-of-river operation, an implementation schedule, and a plan for maintaining the data for inspection by the U.S. Fish and Wildlife Service, the Federal Energy Regulatory Commission, and the New Hampshire Department of Environmental Services. The plan shall be developed in consultation with, and require approval by, the U.S. Fish and

Wildlife Service.

6. The Exemptee shall be responsible for constructing, operating, maintaining and evaluating upstream and downstream fish passage facilities at this project when notified by the U.S. Fish and Wildlife Service and/or the New Hampshire Fish and Game Department that such fishways are needed. All plans and schedules associated with the design, construction, and evaluation of any prescribed fishways shall be developed by the Exemptee in consultation with, and require approval by, the U.S. Fish and Wildlife Service. The fishways shall be operated and maintained in accordance with the schedule identified by the agencies.
7. During refilling of the project reservoir after flashboard replacement, dam maintenance, or emergency drawdown, the Exemptee shall operate the project such that 90 percent of inflow to the project is released below the project and the impoundment is refilled on the remaining 10 percent of inflow. This refill procedure may be modified on a case-by-case basis with the prior approval of both the U.S. Fish and Wildlife Service and the New Hampshire Fish and Game Department.
8. The Exemptee shall notify the U.S. Fish and Wildlife Service in writing when the project commences operation. Such notice shall be sent within 30 days of start-up to Supervisor, New England Field Office, 70 Commercial Street, Suite 300, Concord, New Hampshire 03301. The Exemptee shall furnish the U.S. Fish and Wildlife Service with a set of as-built drawings concurrent with filing said plans with the Federal Energy Regulatory Commission.
9. The Exemptee shall allow the U.S. Fish and Wildlife Service to inspect the project area at any time while the project operates under an exemption from licensing to monitor compliance with their terms and conditions.
10. The U.S. Fish and Wildlife Service reserves the right to add to and alter terms and conditions for this exemption as appropriate to carry out its responsibilities with respect to fish and wildlife resources. The Exemptee shall, within thirty (30) days of receipt, file with the Federal Energy Regulatory Commission any additional terms and conditions imposed by the U.S. Fish and Wildlife Service.
11. The Exemptee shall incorporate the aforementioned terms and conditions in any conveyance—by lease, sale or otherwise—of its interests so as to legally assure compliance with said conditions for as long as the project operates under an exemption from licensing.

Document Content(s)

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