

Algonquin

DE 12-304

POWER INVESTED.

December 17, 2012

Ms. Debra Howland
Executive Director and Secretary
New Hampshire Public Utilities Commission
21 South Fruit St. Suite 10
Concord, NH 03301-2429



Algonquin Power Co.

2845 Bristol Circle
Oakville, Ontario,
Canada L6H 7H7

Tel: 905.465.4500
Fax: 905.465.4514

Regarding: Mine Falls Hydroelectric Limited Partnership Request for Certification of the Mine Falls Hydro Electric Project (FERC No. 3442) as a Class IV Renewable Energy Source

Dear Ms. Howland:

Algonquin Power Co (parent company of Mine Falls Hydroelectric Limited Partnership) on behalf of Mine Falls Hydroelectric Limited Partnership hereby requests that the New Hampshire Public Utilities Commission certify Mine Falls Hydroelectric Project (FERC No. 3442) as an eligible Class IV renewable energy source pursuant to New Hampshire R.S.A. 362-F:4 (IV) and F:13 and Admin. Code PUC 2502.10 Electric Renewable Portfolio Standards.

In support of the request for Class IV eligibility for the Mine Falls Hydroelectric Project, Mine Falls Hydroelectric Limited Partnership submits an original and seven copies of the completed application, required documentation and supplemental information.

Thank you for your consideration of Mine Falls Hydroelectric Limited Partnership's request. If you have any questions or need additional information please feel free to contact me at (905) 465-4501.

Sincerely,

April Meyer, Manager of Technical Services, on behalf of
Bulmaro Landa, Director, Asset Management

DISTRIBUTED

Enclosures

(2)

Nashua NH 3062
(City) (State) (Zip code)

9. Latitude: 42,750,627 Longitude: 71,504,561

10. The name and telephone number of the facility's operator, if different from the owner: Same

(Name)

(Telephone number)

11. The ISO-New England asset identification number, if applicable: 869 or N/A:

12. The GIS facility code, if applicable: _____ or N/A:

13. A description of the facility, including fuel type, gross nameplate generation capacity, the initial commercial operation date, and the date it began operation, if different.

14. If Class I certification is sought for a generation facility that uses biomass, the applicant shall submit:
(a) quarterly average NOx emission rates over the past rolling year,
(b) the most recent average particulate matter emission rates as required by the New Hampshire Department of Environmental Services (NHDES),
(c) a description of the pollution control equipment or proposed practices for compliance with such requirements,
(d) proof that a copy of the completed application has been filed with the NHDES, and
(e) conduct a stack test to verify compliance with the emission standard for particulate matter no later than 12 months prior to the end of the subject calendar quarter except as provided for in RSA 362-F:12, II.
(f) N/A: Class I certification is NOT being sought for a generation facility that uses biomass.

15. If Class I certification is sought for the incremental new production of electricity by a generation facility that uses biomass, methane or hydroelectric technologies to produce energy, the applicant shall:
(a) demonstrate that it has made capital investments after January 1, 2006 with the successful purpose of improving the efficiency or increasing the output of renewable energy from the facility, and
(b) supply the historical generation baseline as defined in RSA 362-F:2, X.
(c) N/A: Class I certification is NOT being sought for the incremental new production of electricity by a generation facility that uses biomass, methane or hydroelectric technologies.

16. If Class I certification is sought for repowered Class III or Class IV sources, the applicant shall:
(a) demonstrate that it has made new capital investments for the purpose of restoring unusable generation capacity or adding to the existing capacity, in light of the NHDES environmental permitting requirements or otherwise, and

- (b) provide documentation that eighty percent of its 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.
- (c) N/A: Class I certification is NOT being sought for repowered Class III or Class IV sources.

17. If Class I certification is sought for formerly nonrenewable energy electric generation facilities, the applicant shall:

- (a) demonstrate that it has made new capital investments for the purpose of repowering with eligible biomass technologies or methane gas and complies with the certification requirements of Puc 2505.04, if using biomass fuels, and
- (b) provide documentation that eighty 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.
- (c) N/A: Class I certification is NOT being sought for formerly nonrenewable energy electric generation facilities.

18. If Class IV certification is sought for an existing small hydroelectric facility, the applicant shall submit proof that:

- (a) it has installed upstream and downstream diadromous fish passages that have been required and approved under the terms of its license or exemption from the Federal Energy Regulatory Commission, and
- (b) when required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects.
- (c) N/A: Class IV certification is NOT being sought for existing small hydroelectric facilities.

Please see Supplemental Information Sheet

19. If the source is located in a control area adjacent to the New England control area, the applicant shall submit proof that the energy is delivered within the New England control area and such delivery is verified using the documentation required in Puc 2504.01(a)(2) a. to e.

Please see Supplemental Information Sheet

20. All other necessary regulatory approvals, including any reviews, approvals or permits required by the NHDES or the environmental protection agency in the facility's state.

Please see Supplemental Information Sheet

21. Proof that the applicant either has an approved interconnection study on file with the commission, is a party to a currently effective interconnection agreement, or is otherwise not required to undertake an interconnection study.

Please see Supplemental Information Sheet

22. A description of how the generation facility is connected to the regional power pool of the local electric distribution utility.

Please see Supplemental Information Sheet

23. A statement as to whether the facility has been certified under another non-federal jurisdiction's renewable portfolio standard and proof thereof.

Please see Supplemental Information Sheet

24. A statement as to whether the facility's output has been verified by ISO-New England.

Please see Supplemental Information Sheet

25. A description of how the facility's output is reported to the GIS if not verified by ISO-New England.

Please see Supplemental Information Sheet

26. An affidavit by the owner attesting to the accuracy of the contents of the application.

Please see Supplemental Information Sheet

27. Such other information as the applicant wishes to provide to assist in classification of the generating facility.

Please see Supplemental Information Sheet

28. This application and all future correspondence should be sent to:

Ms. Debra A. Howland
Executive Director and Secretary
State of New Hampshire
Public Utilities Commission
21 S. Fruit St, Suite 10
Concord, NH 03301-2429

29. Preparer's information:

Name: THOMAS JACOBSEN

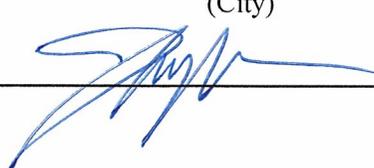
Title: SENIOR DIRECTOR

Address: (1) ELEMENT MARKETS

(2) 3555 TIMMONS LANE

(3) SUITE 900

HOUSTON TX 77027
(City) (State) (Zip code)

30. Preparer's signature: 

SUPPLEMENTAL INFORMATION IN SUPPORT OF MINE FALLS HYDROELECTRIC LIMITED PARTNERSHIP'S APPLICATION FOR CLASS IV RENEWABLE ENERGY SOURCE ELIGIBILITY OF ITS MINE FALLS HYDROELECTRIC PROJECT (FERC NO. 3442)

Mine Falls Hydroelectric Limited Partnership submits the following information in response to the respective information requests contained in the completed application form (organized by number). In addition, Mine Falls Hydroelectric Limited Partnership submits proofs and additional information as requested in the application, in support of the Project's eligibility as a class IV renewable energy source pursuant to New Hampshire R.S.A. 362-F:4(IV) and F:13 and Admin. Code Puc 2502.10.

Sections 1 through 12. – Please see the Application Form.

Section 13. A description of the facility, including fuel type, gross nameplate generation capacity, the initial commercial operation date, and the date it began operation, if different.

The Mine Falls Generating Station is a 3.0 MW hydroelectric generating station located on the Nashua River near the City of Nashua, New Hampshire. The site is comprised of two turbine-generators housed in a new concrete powerhouse located at the site of a historic concrete dam. The site was commissioned in 1986.

Section 14 through 17. – Please see the Application Form.

Section 18. If Class IV certification is sought for an existing small hydroelectric facility, the applicant shall submit proof that: (a) It has installed upstream and downstream diadromous fish passages that have been required and approved under the terms of its license or exemption from the Federal Energy Regulatory Commission, and, (b) When required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects.

In compliance with the existing Federal Energy Regulatory Commission (FERC) license (and the transfer/acceptance of the license transfer) for the Mine Falls Project, and associated Water Quality Certification (See Attachment – Section 20), both upstream and downstream diadromous fish passage facilities are currently installed at the Mine Falls Project. Please see the attached photos and drawings (Attachment – Section 18). For the Mine Falls Downstream Fish Passage an open conduit is used on the right side of the forebay. There is a manually operated gate that is opened to allow fish to be sluiced into the open conduit. The fish can then swim to a bypass pipe which discharges into the tailrace.

The Mine Falls project and the fish passage facilities will be operated under the terms and conditions of the existing license issued by FERC, and as per the designs approved by U.S. Fish and Wildlife Services (FWS).

Section 19. If the source is located in a control area adjacent to the New England control area, the applicant shall submit proof that the energy is delivered within the New England control area and such delivery is verified using the documentation required in PUC 2504.01(a)(2) a. to e.

Not applicable since the Mine Falls Project is located within ISO-New England

Section 20. All other necessary regulatory approvals, including any reviews, approvals or permits required by the NHDES or the environmental protection agency in the facility's state.

Please see attached Federal Energy Regulatory Commission license orders for Mine Falls Hydroelectric Project, and letter from US EPA granting New Hampshire General NPDES Permit no. NHG360000² and letter from Office of Recreation for Mine Falls project. (Attachment – Section 20).

Section 21. Proof that the applicant either has an approved interconnection study on file with the commission, is party to a currently effective interconnection agreement, or is otherwise not required to undertake an interconnection study.

Please see attached the interconnection agreement for the Mine Falls Hydroelectric Project between Mine Falls Limited Partnership and Public Service Company of New Hampshire. (Attachment – Section 21).

Section 22. A description of how the generation facility is connected to the regional power pool of the local electric distribution utility.

The Mine Falls hydroelectric project's electric generating facility is interconnected with the electric system of Public Service Company of New Hampshire (PSNH), a New Hampshire Corporation. The facility consists of two 1500 KW synchronous generators at 4.16 kV, two generator breakers and a single 3750 kVA generator step up transformer. The electric output will be delivered through a type VSO 34.5 kV recloser and a 3-phase, 60 hertz isolating switch to PSNH circuit 3154 in Nashua, New Hampshire. All station service will be taken from a separately metered tap off the 3154 circuit. The Mine Falls facility interconnects with the electric system of PSNH in accordance with applicable New Hampshire Public Utilities Commission Orders and Federal Law. See Attachment – Section 21 for more details.

Section 23. A statement as to whether the facility has been certified under another non-federal jurisdiction's renewable portfolio standard and proof thereof.

The Mine Falls facility has not been certified under another non-federal jurisdiction's renewable energy portfolio standard. (See Attachment – Section 23)

Section 24. A statement as to whether the facility's output has been verified by ISO - New England.

The Mine Falls Hydroelectric project is a settlement only generator (asset identification number 869) and its output is verified by the ISO New England.

Section 25. A description of how the facility's output is reported to the GIS if not verified by ISO-New England.

Not applicable since the Mine Falls' hydroelectric output is verified by the ISO-New England.

Section 26. An affidavit by the owner attesting to the accuracy of the content of the application.

Please See Attachment 26

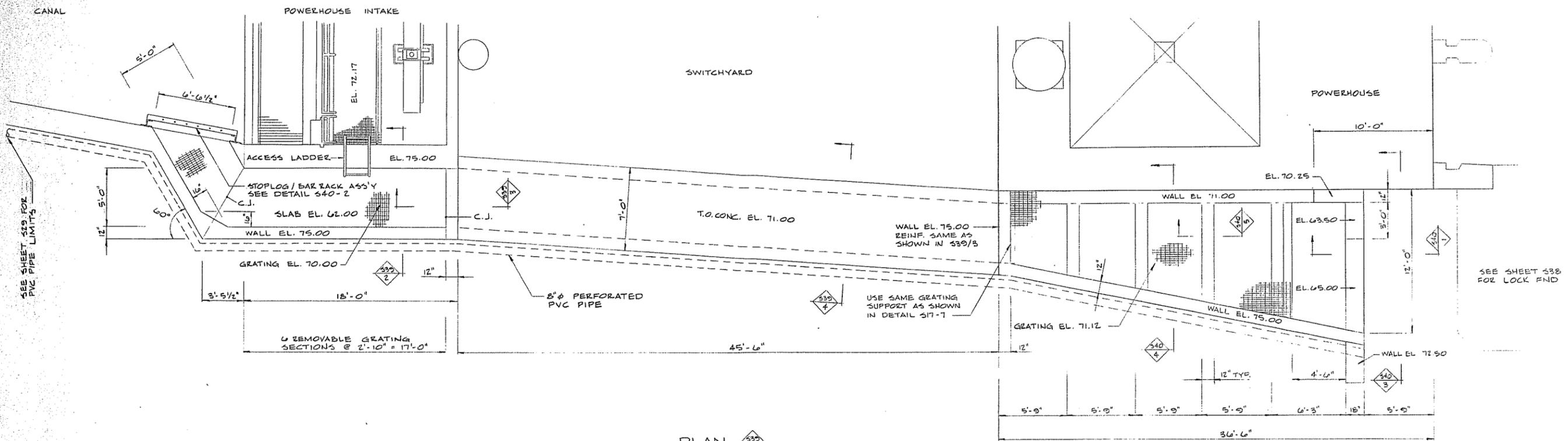
Section 27. Such other information as the applicant wishes to provide to assist in classification of the generating facility.

None.

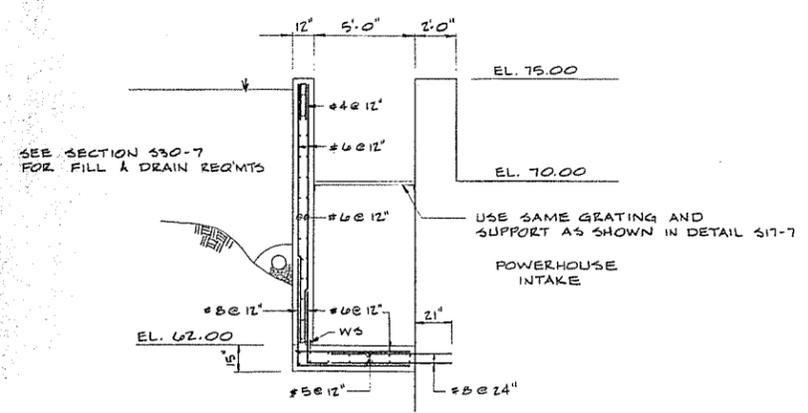


Image: Upstream Fishway at Mine Falls Hydroelectric Project

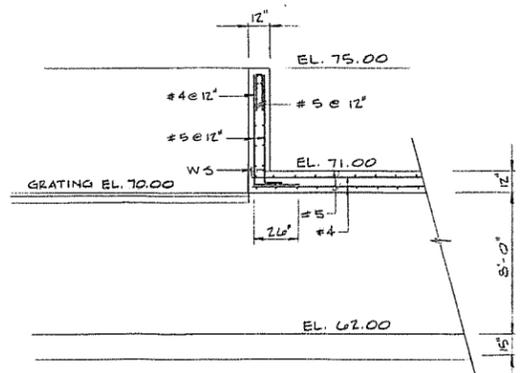
Attachment – Section 18



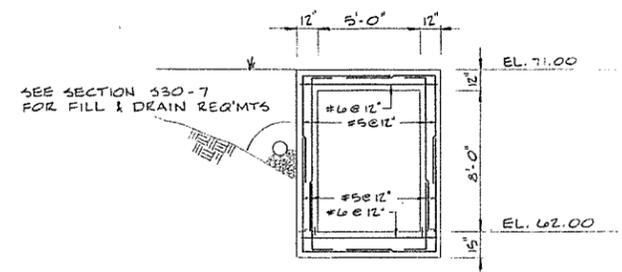
PLAN
SCALE — 1/4" = 1'-0"



SECTION 2
SCALE — 1/4" = 1'-0"



SECTION 3
SCALE — 1/4" = 1'-0"



SECTION 4
SCALE — 1/4" = 1'-0"

NO.	REVISION	DATE	CHK'D	NO.	REVISION	DATE	CHK'D
1	REV S39-1	6/17/85	WRC				
2	REMOVE HOLD	7/24/85	WRC				

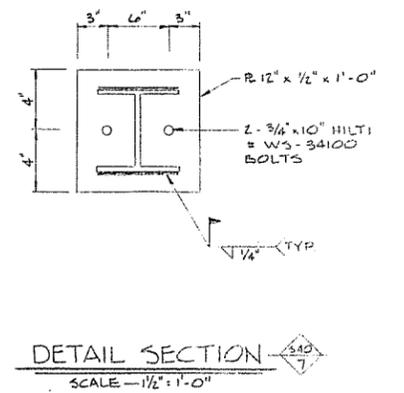
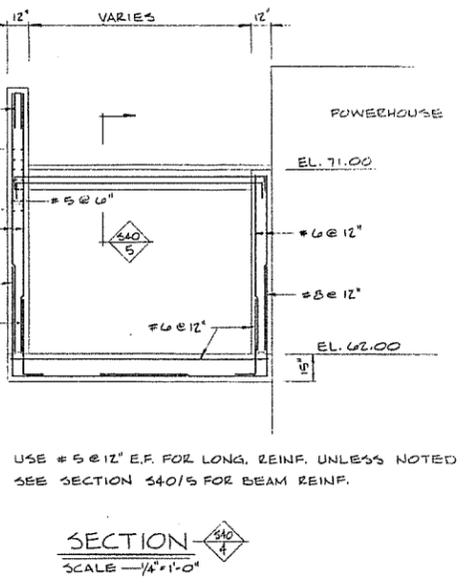
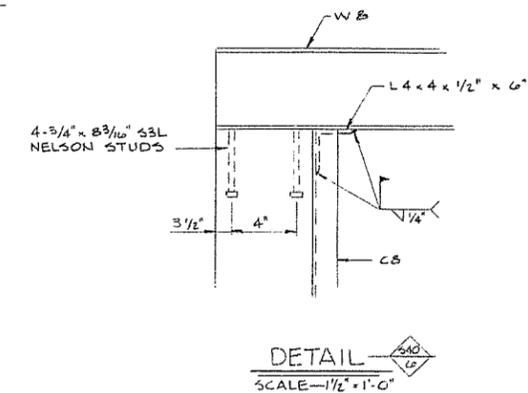
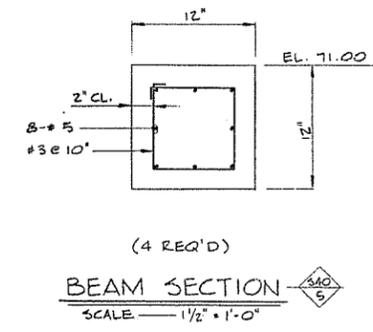
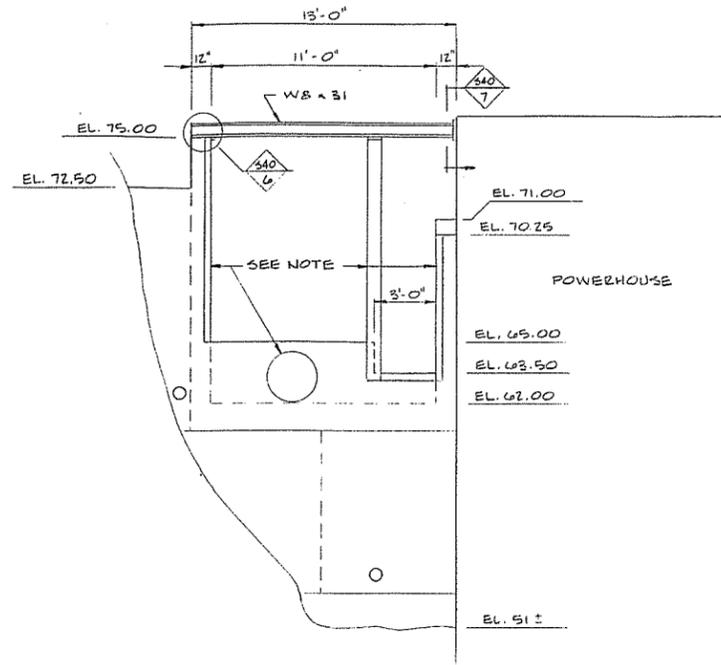
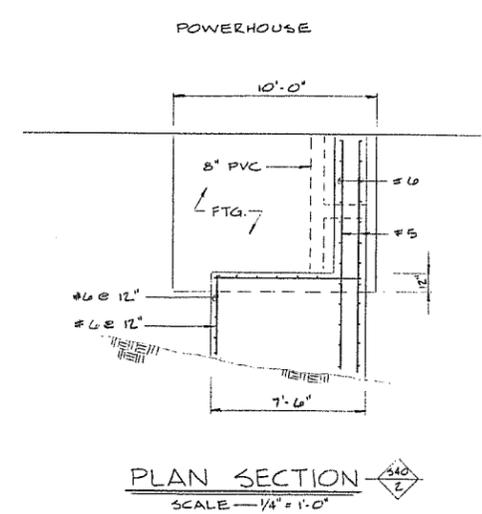
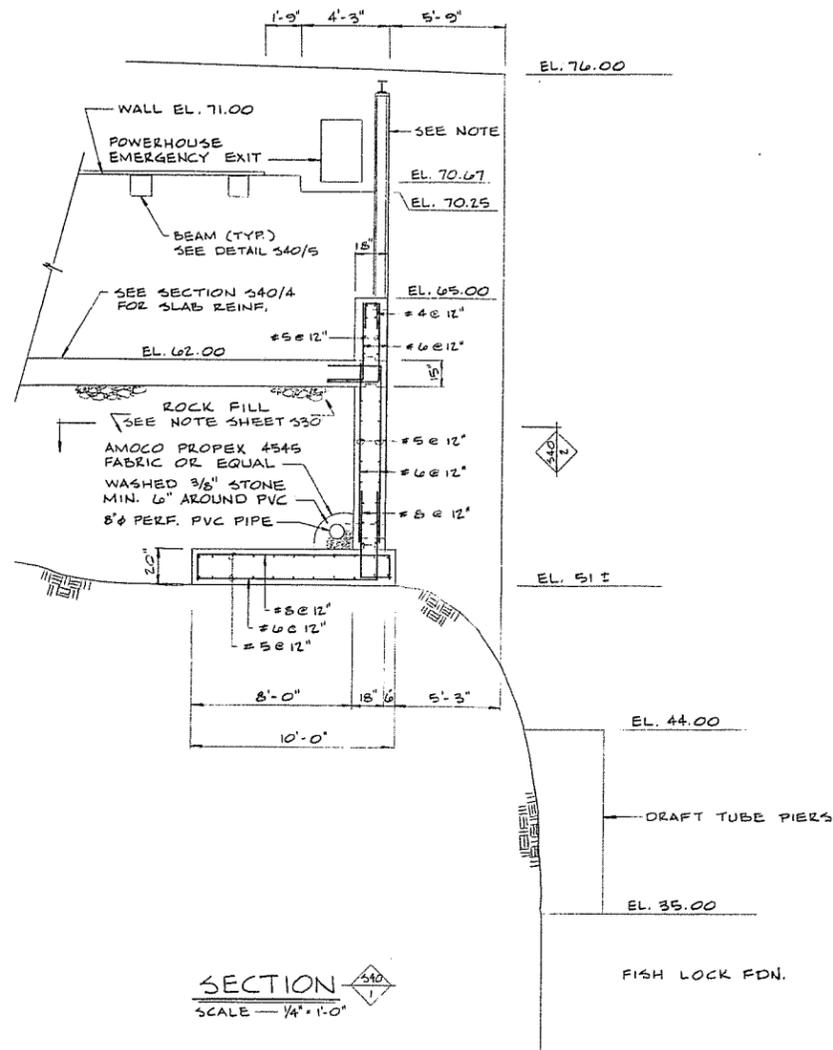
DESIGNED WRC SCALE AS SHOWN
 DRAWN EJB DATE 10/30/85
 CHECKED WRC DATE 11/1/85
 APPROVED WRC DATE 11/1/85

MINE FALLS HYDROELECTRIC PROJECT
 NASHUA, NEW HAMPSHIRE

**FISH PASSAGE
 PLAN & SECTIONS**

RIVERS ENGINEERING CORPORATION
 CONSULTING ENGINEERS
 LONDONDERRY, NEW HAMPSHIRE

SHEET
S39



NOTE -
FOR EMBEDDED METAL DETAILS, SEE
MINE FALLS FISHWAY DRAWINGS BY
LAKESIDE ENGINEERING, MIRROR LAKE,
N.H. DATED JULY, 1986

NO.	REVISION	DATE	CHK'D	NO.	REVISION	DATE	CHK'D
1	ADD 340-3, 4, 5	6/11/85	ELB				
2	ADD MISC. METALS	7/24/85	WRC				

DESIGNED WRC SCALE AS SHOWN
DRAWN ELB DATE 2/14/85
CHECKED WRC DATE 7/24/85
APPROVED SJD DATE 9/24/85

MINE FALLS HYDROELECTRIC PROJECT
NASHUA, NEW HAMPSHIRE

**FISH PASSAGE
SECTIONS & DETAILS**

RIVERS ENGINEERING CORPORATION
CONSULTING ENGINEERS
LONDONDERRY, NEW HAMPSHIRE

SHEET
S40

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

19
88 FERC 162,158

City of Nashua, New Hampshire,)
Seaward Construction Company, Inc.,) Project No. 3442-004
and Mine Falls Limited Partnership)

ORDER APPROVING TRANSFER OF LICENSE

(Issued November 5, 1985)

On September 19, 1985, City of Nashua, New Hampshire and Seaward Construction Company, Inc. (Licensee), and Mine Falls Limited Partnership (Transferee), filed a joint application for the transfer of a major license for the Mine Falls Project No. 3442.

The project is located on the Nashua River, in Hillsborough County, New Hampshire.

The application proposes the transfer of the license from the City of Nashua and Seaward Construction Co., Inc. to the City of Nashua and Mine Falls Limited Partnership to be held jointly.

The transfer is requested because Seaward Construction Company, Inc. plans to sell its interest in the Mine Falls Project to the Transferee, who will operate and maintain the project. The Transferee must therefore be a licensee under the license for the Mine Falls Project, as provided by the Federal Power Act.

Public notice of the application was given. No protests or motions to intervene have been received. The application states that the Transferee agrees to accept all the terms and conditions of the license and of the Federal Power Act, and agrees to be bound thereby to the same extent as though it were the original Licensee.

Approval of the transfer of license as described in the application, is in the public interest. The transfer is an administrative action, involving no construction or change in project operation, and is therefore not a major Federal action significantly affecting the quality of the human environment.

The Director of the Office of Hydropower Licensing or the Director's designee, under 18 C.F.R. §375.314, orders:

(A) The transfer of the license for Project No. 3442 to the City of Nashua, New Hampshire and Mine Falls Limited Partnership as described in the application for transfer, is approved and made effective as of the first day of the month in which this order is issued, subject to the provisions of Section 9.3 of the Commission's regulations ^{1/} under the Federal Power Act and the conditions set forth below.

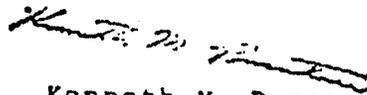
PROPERTY OF PUBLIC REFERENCE

DO NOT REMOVE FROM

ROOM 1000

(B) Approval of the transfer of license is contingent upon the transfer of title to the properties under license and the delivery of all instruments to the City of Nashua, New Hampshire and Mine Falls Limited Partnership, which shall be subject to all the conditions of the Federal Power Act, as though they were the original Licensee, and the Transferor is responsible for the payment of annual charges that accrue prior to the date of transfer. The City of Nashua, New Hampshire and Mine Falls Limited Partnership shall submit certified copies of all instruments of conveyance within 60 days from the date of issuance of this order.

(C) This order is final unless appealed to the Commission by any party within 30 days from the issuance date of this order under 18 C.F.R. 385.1902 (1985).



Kenneth M. Pusateri
Acting Director, Office
of Hydropower Licensing

Attachment – Section 20



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

Section 20
Water Quality
Certification

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

JAN 25 2012

Ralph A. Tomat
New England Regional Manager
Algonquin Power Company
24 Mill Street
Tilton, NH 03276

Re: NPDES General Permit for Hydroelectric Generating Facilities in New Hampshire –
No. NHG360020 for Algonquin Power's Mine Falls Hydroelectric Facility in Nashua, NH

Dear Mr. Tomat:

Based on the review of your notice of intent (NOI) dated September 22, 2011, the United States Environmental Protection Agency (EPA) hereby authorizes you to discharge in accordance with the provisions of the New Hampshire General NPDES Permit No. NHG360000 for Hydroelectric Generating Facilities (HYDRO GP) effective April 1, 2012.

The effluent limitations and monitoring requirements for Outfall 001 shall go into effect during the calendar quarter beginning on April 1, 2012. For the purposes of the HYDRO GP, the calendar quarters are defined as January 1 to March 31, April 1 to June 30, July 1 to September 30, and October 1 to December 31. As a convenience, the enclosed effluent limitations summary page for Outfall 001 is provided and is based on the information provided in your NOI. This summary page includes effluent limitations and monitoring requirements applicable to your discharge. However, this summary page does not represent the complete requirements of the New Hampshire Hydroelectric Facilities General Permit. Permittees must comply with all of the applicable requirements of this general permit, including effluent monitoring, State of New Hampshire permit conditions, administrative aspects, additional permit conditions, best management practices plan, and standard conditions including reporting requirements. The complete HYDRO GP and related information can be found at EPA's website:
<http://www.epa.gov/region1/npdes/newhampshire.html>.

EPA has developed a web-based tool named "NetDMR" that allows permittees to electronically submit their discharge monitoring reports (DMRs) and other reports to EPA via a secure internet connection. NetDMR is now available for use at facilities in New Hampshire and Massachusetts, and information concerning NetDMR can be found at <http://www.epa.gov/netdmr>. Although the HYDRO GP does not currently require the use of NetDMR, EPA expects that future permits will include a requirement for its use. Accordingly, EPA is requesting that all permittees subject to the requirements of the HYDRO GP consider using NetDMR during this permit cycle. In order to begin using NetDMR, a facility must participate in some initial training which is provided at no

Toll Free • 1-888-372-7341

Internet Address (URL) • <http://www.epa.gov/region1>

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 30% Postconsumer)

cost by EPA. Please contact Norma Mason at (617) 918-1879 or Neil Handler at (617) 918-1334 if you are interested in registering for the NetDMR training or have questions about the use of NetDMR.

A supply of DMR forms to be used by the permittee to report monitoring results will be mailed to you under separate cover. These forms are to be used to enter the facility data and reporting requirements for each calendar quarter until this permit expires or until the facility elects to use NetDMR and is approved by EPA to use it. If more than one page per reporting cycle is used, please enter all repetitious data, such as facility name, address, NPDES number, outfall number and applicable limits on each page. These forms shall be completed and postmarked no later than the 15th day of the month following the completed reporting quarter. Signed and dated originals of the DMRs, and all other reports required herein, shall be submitted to the appropriate State address listed in the general permit and to the EPA address listed below:

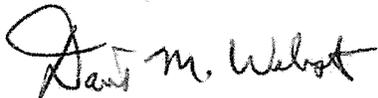
U.S. Environmental Protection Agency
Water Technical Unit
5 Post Office Square, Suite 100 (OES04-4)
Boston, MA 02109-3912

This general permit and authorization to discharge expire on December 7, 2014. The permit may then be administratively continued. In this situation, you will need to follow instructions for maintaining coverage under a reissued general permit once these instructions are made available.

In the future, if a situation should arise where the information provided on the NOI no longer represents the facility's operations or there are planned changes to the facility or its discharges, you must notify EPA as soon as possible in accordance with Part II.D.1 of the general permit. With this information, EPA will determine whether a change in permit coverage is warranted.

Your NPDES permit number is indicated in the subject line of this letter and should be referenced on all correspondence. We appreciate your cooperation in applying for coverage under this general permit. If you have any questions regarding this permit, please contact George Papadopoulos at (617) 918-1579 or Robin Johnson at (617) 918-1045.

Sincerely,



David M. Webster, Chief
Industrial Permits Branch
Office of Ecosystem Protection

Enclosure

cc: David Bronicheski, Algonquin Power, Ontario, Canada
Amy Clark, NHDES

Permit No. NHG360020

Summary of specific numeric effluent limitations and monitoring requirements for Algonquin Power's Mine Falls Hydroelectric Generating Facility. Monitoring for this outfall is to be conducted and reported in accordance with Part I.B.6 and Part I.E. This summary is provided as a convenience using the submitted NOI information and it does not replace the effluent limitations and monitoring requirements, and other conditions set forth in New Hampshire General Permit No. NHG360000; effective December 7, 2009.

During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge equipment and floor drain water (packing water) and equipment-related cooling water from Outfall 001 to the Nashua River. Sampling shall be conducted at a representative location prior to discharge. These discharges are limited as shown below and on Page 14 of the HYDRO GP.

<u>Effluent Characteristic</u>	<u>Units</u>	<u>Discharge Limitation</u>	<u>Monitoring Requirement</u>	
			<u>Measurement Frequency</u>	<u>Sample Type</u>
		<u>Average Monthly</u>		
Flow ¹	Gallons/day	Report	1/Quarter	Estimate
pH Range ^{2,3}	Standard Units	6.5 to 8.0	1/Quarter	Grab
Oil and Grease ⁴	mg/L	15	1/Quarter	Grab
Temperature	° F	Report	1/Quarter	Grab

Explanation to Superscripts:

- (1) The No Data Indicator Code (NODI) "C" applies when there is no discharge from an outfall and is entered on the monthly Discharge Monitoring Report (DMR). A written explanation for the NODI is required with the DMR report. Additional NODI codes applicable to other conditions are found in the annual NPDES Permit Program Instructions for the DMR forms. These instructions can be found at: <http://www.epa.gov/ne/enforcementandassistance/dmr.html>.
- (2) State certification requirement; see Part I.B.15.a.
- (3) Results of the ambient upstream river water pH sampling that are obtained to determine compliance with this limit shall be submitted as an attachment with the DMR.
- (4) Oil and Grease shall be tested using EPA test method 1664 Revision A as approved in 40 CFR 136.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

24 FEB 1983 144

- 2 -

The City of Nashua and Seaward)
Construction Company) Project No. 3442-001

ORDER ISSUING LICENSE (MAJOR)

(Issued August 4, 1983)

The City of Nashua and Seaward Construction Company (NSCC) jointly filed on June 7, 1982, an application for license under Part I of the Federal Power Act (Act) to construct, operate and maintain the Mine Falls Project No. 3442. 1/ The project would be located on the Nashua River in the City of Nashua, Hillsborough County, New Hampshire. Notice of the application has been published and comments have been received from interested Federal, State, and local agencies. No protests or motions to intervene have been received, and none of the agencies objected to issuance of the license.

The proposed project would consist of an existing 14.5-foot-high concrete dam to be increased 5 feet in height by adding a 3-foot-high concrete cap and 2-foot-high flashboards, a new stop-log section at the west dam abutment in place of a concrete wingwall, a new 250-foot-long concrete block retaining wall extending upstream from the east dam abutment, a 242-acre reservoir with a usable storage capacity of 450 acre feet utilizing 2 feet of drawdown, a new 350-foot-long power canal, a new powerhouse containing a turbine-generator with a total rated capacity of 3,032-kW, a 360-foot-long tailrace channel, and a 250-foot-long transmission line. The dam, which is owned by the City of Nashua, once supplied water to an adjacent historic mill pond and canal system in Nashua. The 250-foot-long retaining wall would close

- 1/ Authority to act on this matter is delegated to the Director, Office of Electric Power Regulation, under §375.308 of the Commission's regulations, 18 C.F.R. §375.308 (1982), FERC Statutes and Regulations §30,238. This order may be appealed to the Commission by any party within 30 days of its issuance pursuant to Rule 1902, 18 C.F.R. §385.1902, FERC Statutes and Regulations §29,052, 47 Fed. Reg. 19014 (1982). Filing an appeal and final Commission action on that appeal are prerequisites for filing an application for rehearing as provided in Section 313(a) of the Act. Filing an appeal does not operate as a stay of the effective date of this order or of any other date specified in this order, except as specifically directed by the Commission.

DC-A-16

Mine Falls. 0609
35.6.1

off the intake to the historic canal. A culvert would continue to supply the canal with water. The project would generate an estimated 9,452,000 kWh annually and its output would be sold to the Public Service Company of New Hampshire.

Safety and Adequacy

The Commission's New York Regional Office inspected the project and found that the project dam has a low hazard potential. The dam, with all stoplogs and flashboards removed has essentially no effect on the streamflow regime under flood conditions. The staff finds that the dam, as proposed, will be safe and adequate for continued operation if constructed in accordance with sound engineering practice and the terms and conditions of this license.

Anadromous Fish Passage

Plans to restore runs of anadromous fish, primarily American shad, to the Nashua River call for the installation of fishways at the downstream Jackson Mills dam and the Mine Falls dam by 1985, or 1 year following completion of fish passage facilities at the Lowell Project (FERC No. 2790) on the Merrimack River. Both upstream and downstream passage facilities will be needed. NSCC proposes to make provisions for a fish passage facility that would transport fish from the tailrace to the power canal, and has submitted two alternative designs to the U.S. Fish and Wildlife Service (FWS) for review and comment. FWS recommended the inclusion of a special article in the license that would require the NSCC to install fish passage facilities. Article 31 requires NSCC to design and construct fish passage facilities.

Minimum Flows

NSCC proposes to release 20 cubic feet per second (cfs) from the dam spillway in order to maintain the scenic values and resident aquatic life of the 350-foot reach between the dam and the tailrace discharge. Flows insufficient for generation (less than 200 cfs) would be released from the dam spillway and from gates at the head of the power canal. The minimum flow from the spillway, therefore, would be augmented about 40 percent of the time. NSCC further proposes to release 10 cfs through a new controlled culvert into the mill pond in order to sustain the visual and recreational resources of the mill pond/canal system.

FWS recommended that the proposed spillway release of 20 cfs be an interim minimum flow during the first year of project operation, pending observation of the adequacy of that flow in maintaining the existing aquatic habitat. FWS further recommended that to protect aquatic habitat downstream from the project, NSCC be

required to release from the project (i.e., tailrace discharge plus spillway release) a continuous flow of 215 cfs or inflow to the project, whichever is less, to ensure that the project would be operated run-of-river. The New Hampshire Fish and Game Department (FGD) concurred with the FWS recommendations. The U.S. Environmental Protection Agency recommended that to protect water quality, the spillway release should be 45.35 cfs, which is the mean low flow through the project reach over 7 consecutive days with a 10-year recurrence (7Q10).

It is concluded that minimum release of 215 cfs would be adequate as an interim flow to protect aquatic resources. The adequacy of the proposed spillway release for maintaining resident aquatic life, water quality, and scenic resources has not, however, been determined. Article 32 requires (1) a study of the minimum flow requirements for the spillway and other project release points, and (2) filing for Commission approval, within 1 year from commencement of project operation, recommendations for a minimum flow release from the project. Article 32 also establishes interim minimum flows until permanent flows are ordered by the Commission. The New Hampshire Water Supply and Pollution Control Commission issued water quality certification on November 9, 1982.

Cultural Resources

The New Hampshire State Historic Preservation Officer (SHPO) believes that the project area warrants an archeological survey. The SHPO also believes that the Mine Falls Dam, the mill pond/canal system, and the gatehouse for the existing mill pond intake are potentially eligible for inclusion on the National Register of Historic Places. The SHPO stated that the structural and visual integrity of those properties would be preserved if the project is constructed and operated as proposed. NSCC responded that it would comply with all reasonable SHPO requests. Article 33 is included in this license and provides for cultural resource protection.

Environmental Impacts

The proposed surface elevation of the impoundment would not differ significantly from the historic levels 2/ and no adverse environmental impacts are expected. Construction of the project would result in increases in noise levels, engine exhaust emissions, dust from

2/ In 1951 the dam was fitted with 4.5-foot-high flashboards which raised the normal water surface elevation to 1/2 feet below the proposed water surface elevation.

construction activities, and sedimentation and erosion from disturbance of riverbed and land surfaces. License articles requiring fish passage facilities and minimum flow releases would ensure protection and enhancement of the Nashua River's aquatic resources. No federally listed threatened or endangered species would be affected by the proposed project.

On the basis of the record and staff's independent analysis, it is concluded that issuance of a license for the project as conditioned would not constitute a major Federal action significantly affecting the quality of the human environment.

License Term

The proposed scale of development is less than that which would warrant a full 50-year term since the majority of the project facilities exist. Therefore, pursuant to the Commission's policy for licensing projects involving moderate redevelopment, this license term will be for a period of 40 years.

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Economic Feasibility

Staff has analyzed the economic feasibility of redevelopment of the Mine Falls Dam. The proposed project is economically feasible to develop, based on revenues derived from sale of power under rates set by the State of New Hampshire under Section 210 of the Public Utility Regulatory Policy Act of 1978.

Comprehensive Development

The project powerhouse would contain turbine generators with a total rated capacity of 3,032 kW operating under a gross head of 37 feet and a hydraulic capacity of 1,140 cfs. The project would utilize all of the flow and fall of the Nashua River that is practical.

A review of the FERC Planning Status Report for the Merrimack River Basin indicates that the proposed project will not conflict with future development of the river basin.

It is concluded that the project, as redeveloped, will be best adapted to the comprehensive development of the Nashua River for beneficial public purposes upon compliance with the terms and conditions of this license.

Exhibits

Exhibit G, Sheet 1 (FERC No. 3442-1) drawing as submitted with the application should be revised to show the project boundary as either a contour or metes and bounds line or a combination pursuant

to 18 C.F.R. 4.61(f)(4)(i). Article 24 requires the filing of a revised Exhibit G drawing within 90 days of completion of construction.

It is ordered that:

(A) This license is issued jointly to the City of Nashua, New Hampshire and Seaward Construction Company (Licensee) under Part I of the Federal Power Act (Act), for a period of 40 years, effective the first day of the month in which this order is issued, for the construction, operation and maintenance of the Mine Falls Project No. 3442 located on the Nashua River in Hillsborough County, New Hampshire. This license is subject to the terms and conditions of the Act, which are incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the Act.

(B) The Mine Falls Project No. 3442 consists of:

(1) All lands, to the extent of the Licensee's interests in those lands, constituting the project area and enclosed by the project boundary. The project area and boundary are shown and described by certain exhibits that form part of the application for license and that are designated and described as:

<u>Exhibit</u>	<u>FERC No. 3442-</u>	<u>Showing</u>
G, Sheet 1	1	Project Land and Boundaries

(2) Project works consisting of: (1) a 14.5-foot-high, 145-foot-long concrete spillway to be increased 5 feet in height with a 3-foot-high concrete and masonry-faced cap and 2-foot-high flashboards; (2) a 46.5-foot-long stoplog section at the west abutment; (3) a concrete block retaining wall extending approximately 250 feet upstream from the east dam abutment; (4) a reservoir with a usable storage capacity of 450 acre-feet at elevation 159.9 feet NGVD with 2 feet of drawdown; (5) a 350-foot-long, 16-foot-wide power canal formed by a 350-foot-long concrete gravity wall along the east river bank and cut into rock; (6) a powerhouse containing turbine-generators with a total rated capacity of 3,032 kW; (7) a 360-foot-long tailrace channel; (8) the 4.16-kV generator leads; (9) the 4.16/34.5-kV, 3.5-MVA transformer; (10) a 250-foot-long, 34.5-kV transmission line; (11) a fish passage facility; and (12) appurtenant facilities.

The location, nature, and character of these project works are generally shown and described by the exhibits cited above and more specifically shown and described by certain other exhibits and reports that also form part of the application for license and that are designated and described as:

<u>Exhibit</u>	<u>FERC No. 3442-</u>	<u>Showing</u>
F, Sheet 1	2	Principal Project Works
F, Sheet 2	3	Principal Project Works

(3) All of the structures, fixtures, equipment, or facilities used or useful in the operation or maintenance of the project and located within the project boundary, all portable property that may be employed in connection with the project, located within or outside the project boundary, as approved by the Commission, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) Exhibit A items (i) thru (viii) pages 1 and 2 which includes information on mechanical, electrical and transmission equipment and the Exhibit F and G drawings are approved and made a part of the license with the exception of Exhibit G Sheet 1 which is approved only to the extent that it shows the general project location.

(D) This license is also subject to Articles 1 through 18 set forth in Form L-11 (revised October, 1975), entitled "Terms and Conditions of License for Unconstructed Major Project Affecting the Interest of Interstate or Foreign Commerce," attached to and made a part of this license. The license is also subject to the following additional articles:

Article 24. The Licensee shall, within 90 days of completion of construction, file for approval with a copy to the Director, Office of Electric Power Regulation, in accordance with Commission's Rules and Regulations, revised "as-built" Exhibit A and Exhibit F and G drawings showing the project as finally constructed. The Exhibit G Sheet 1 drawing should also be revised to show a project boundary drawn in accordance with 18 C.F.R. 4.61(f)(4)(i).

Article 25. The Licensee shall provide to the Commission's Regional Engineer in New York and the Director, Office of Electric Power Regulation, one copy each of the final contract drawings and specifications for pertinent features of the project, such as water retention structures, powerhouses, and water conveyance structures, at least 60 days prior to start of construction. The Director, Office of Electric Power Regulation, may require changes in the plans and specifications to assure safe and adequate operation.

Article 26. The Licensee shall pay the United States the following annual charges, effective the first day of the month in which this license is issued:

For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 4,000 horsepower.

Article 27. The Licensee shall commence construction of the project within 2 years from the effective date of this license, and in good faith and with due diligence prosecute and complete construction of the project works within 4 years from the effective date of this license.

Article 28. The Licensee shall review and approve the design and construction procedures for contractor-designed cofferdams and deep excavations prior to the start of construction. The Licensee shall provide to the Commission's Regional Engineer in New York and the Director, Office of Electric Power Regulation, one copy of the approved construction drawings and specifications and a copy of the letter of approval at least 30 days prior to the start of construction.

Article 29. (a) In accordance with the provisions of this article, the Licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain other types of use and occupancy, without prior Commission approval. The Licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the Licensee shall also have continuing responsibility to supervise and control the uses and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the Licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the Licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, cancelling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The types of use and occupancy of project lands and waters for which the Licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time where said facility is intended to serve single-family type dwellings; and (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the Licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The Licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the uses and occupancies for which it grants permission are maintained in good repair and comply with applicable State and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the Licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the Licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the Licensee's costs of administering the permit program. The Commission reserves the right to require the Licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The Licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary State and Federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the Licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The Licensee may convey fee titles to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary State and Federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary Federal and State water quality certificates or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary Federal and State approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from the edge of the project reservoir at normal maximum surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 45 days before conveying any interest in project lands under this paragraph (d), the Licensee must file a letter to the Director, Office of Electric Power Regulation, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any Federal or State agency official consulted, and any Federal or State approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the Licensee to file an application for prior approval, the Licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraphs (c) or (d) of this article:

(1) Before conveying the interest, the Licensee shall consult with Federal and State fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the Licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include covenants running with the land adequate to ensure that: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the Licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

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

Article 30. Pursuant to Section 10(d) of the Act, during the first 20 years of operation of the project under license, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. One half of the project surplus earnings, if any, accumulated after the first 20 years of operation under the license, in excess of the specified rate of return per annum on the net investment, shall be set aside in a project amortization reserve account at the end of each fiscal year. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year after the first 20 years of operation under the license, the amount of that deficiency shall be deducted from the amount of any surplus earnings subsequently accumulated, until absorbed. One half of the remaining surplus earnings, if any, cumulatively computed, shall be set aside in the project amortization reserve account. The amounts established in the project amortization reserve account shall be maintained until further order of the Commission.

The annual specified reasonable rate of return shall be the sum of the annual weighted costs of long-term debt, preferred stock, and common equity, as defined below. The annual weighted cost for each component of the reasonable rate of return is the product of its capital ratio and cost rate. The annual capital ratio for each component of the rate of return shall be calculated based on an average of 13 monthly balances of amounts properly includable in the Licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rates for long-term debt and preferred stock shall be their respective weighted average costs for the year, and the cost of common equity shall be the interest rate on 10-year government bonds (reported as the Treasury Department's 10 year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 31. The Licensee shall, within 1 year from the date of issuance of this license, file for Commission approval functional design drawings of upstream and downstream fish passage facilities for the Mine Falls Project, developed in cooperation with the U.S. Fish and Wildlife Service, and the New Hampshire Fish and Game Department. The filing shall include agency letters of comment on the proposed design. Licensee shall construct such facilities after Commission approval. Within 6 months from the date of completion of the fish passage facilities, Licensee shall file with the Commission as-built drawings.

Article 32. The Licensee shall discharge from the Mine Falls Project an interim continuous minimum flow of 215 cubic feet per second (cfs), as measured immediately below the project tailrace, or the inflow to the reservoir, whichever is less, for the protection of aquatic resources in the Nashua River. This interim flow shall include a continuous minimum flow of 20 cfs over the Mine Falls Dam for the protection of water quality, fishery, wildlife, visual, and recreational resources during the minimum flow study described herein. Licensee shall also discharge from the project reservoir into the Mill Pond an interim continuous minimum flow of 10 cfs for the maintenance of visual quality and recreational opportunities in the Mill Pond and associated canal. Interim minimum flows shall be maintained by Licensee until final minimum flow requirements are approved by the Commission. Interim minimum flows may be temporarily modified if required by operating emergencies beyond the control of Licensee, for short periods for fishery management purposes, or as required for the minimum flow study upon mutual agreement between Licensee and the New Hampshire Fish and Game Department.

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DRAWINGS?

Licensee shall consult with the U.S. Fish and Wildlife Service, New Hampshire Fish and Game Department, New Hampshire Water Resources Board, and the Division of Parks and Recreation of the New Hampshire Department of Resources and Economic Development in conducting a study to determine the minimum flow releases needed at all project facilities for the protection of fishery, wildlife, visual, and recreational resources. Licensee shall, within 1 year from the commencement of operation of the project, file with the Commission a report of the results of the study and, for Commission approval, recommendations for minimum flow releases from the Mine Falls Project facilities.

Article 33. The Licensee shall, prior to any construction or development at the project, consult with the New Hampshire State Historic Preservation Officer (SHPO) on the design of a survey to identify, describe, and assess the significance of archeological and historical resources in the project impact area, including the project dam and related facilities. The survey shall be conducted in a manner satisfactory to the SHPO, and each site or property identified during the survey shall be evaluated according to the National Register of Historic Places eligibility criteria. Following completion of the survey, the Licensee shall file for Commission approval, with a copy to the SHPO, a survey report (Report) describing the nature and extent of the work performed and summarizing the findings and eligibility evaluations related to archeological and historical resources.

In the event that the survey identifies significant archeological or historical resources that will be affected by project construction or operation, the Licensee shall develop a cultural resources management plan in consultation with the SHPO. The Licensee shall include in its Report a description of the plan and the amount of funds the Licensee proposes to make available for its implementation. The Report shall be filed for Commission approval, with a copy to the SHPO, no less than 60 days before the proposed plan would be implemented.

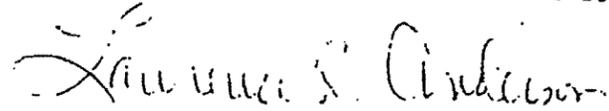
Following completion of any data recovery work specified in the plan, and prior to any construction or project operation that would affect significant archeological or historical resources, the Licensee shall file for Commission approval, with a copy to the SHPO, a report summarizing the results of activities to mitigate the effect of project construction or operation on significant resources.

If any previously unrecorded archeological or historical sites are discovered during the course of construction or development of any project works or other facilities at the project, construction activity in the vicinity shall be halted, a qualified archeologist

shall be consulted to determine the significance of the sites, and the Licensee shall consult with the SHPO to develop and execute a mitigation plan for the protection of significant sites and shall inform the Commission of these activities.

The Licensee shall provide funds in a reasonable amount for any archeological or historical work as required. If the Licensee and the SHPO cannot agree on the amount of money to be expended on archeological or historical work related to the project, the Commission reserves the right to require the Licensee to conduct, at its own expense, any such work found necessary.

(E) Failure of the Licensee to file a petition appealing this order to the Commission shall constitute acceptance of this license. In acknowledgment of acceptance of this license, the license shall be signed for the Licensee and returned to the Commission within 60 days from the date of issuance of this order.



Lawrence R. Anderson
Director, Office of Electric
Power Regulation

Project No. 3442-001

IN TESTIMONY of its acknowledgment of acceptance of all of the terms and conditions of this Order, the City of Nashua and Seaward Construction Company this ____ day of _____, 19____, has caused its name to be signed hereto by _____, its _____ President, and its corporate seal to be affixed hereto and attested by _____ its _____ Secretary, pursuant to a resolution of its Board of Directors duly adopted on the ____ day of _____, 19____, a certified copy of the record of which is attached hereto.

By _____
President

Attest:

Secretary

(Executed in quadruplicate)

FEDERAL ENERGY REGULATORY COMMISSION

TERMS AND CONDITIONS OF LICENSE FOR UNCONSTRUCTED
MAJOR PROJECT AFFECTING THE INTERESTS
OF INTERSTATE OR FOREIGN COMMERCE

Article 1. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project works shall be constructed in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its

judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

Upon the completion of the project, or at such other time as the Commission may direct, the Licensee shall submit to the Commission for approval revised exhibits insofar as necessary to show any divergence from or variations in the project area and project boundary as finally located or in the project works as actually constructed when compared with the area and boundary shown and the works described in the license or in the exhibits approved by the Commission, together with a statement in writing setting forth the reasons which in the opinion of the Licensee necessitated or justified variation in or divergence from the approved exhibits. Such revised exhibits shall, if and when approved by the Commission, be made a part of the license under the provisions of Article 2 hereof.

Article 4. The construction, operation, and maintenance of the project and any work incidental to additions or alterations shall be subject to the inspection and supervision of the Regional Engineer, Federal Power Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of the project and for any subsequent alterations to the project. Construction of the project works or any feature or alteration thereof shall not be initiated until the program of inspection for the project works or any such feature thereof has been approved by said representative. The Licensee shall also furnish to said representative such further information as he may require concerning the construction, operation, and maintenance of the project, and of any alteration thereof, and shall notify him of the date upon which work will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and

across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Article 6. In the event the project is taken over by the United States upon the termination of the license as provided in Section 14 of the Federal Power Act, or is transferred to a new licensee or to a non-power licensee under the provisions of Section 15 of said Act, the Licensee, its successors and assigns shall be responsible for, and shall make good any defect of title to, or of right of occupancy and use in, any of such project property that is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and shall pay and discharge, or shall assume responsibility for payment and discharge of, all liens or encumbrances upon the project or project property created by the Licensee or created or incurred after the issuance of the license: Provided, That the provisions of this article are not intended to require the Licensee, for

the purpose of transferring the project to the United States or to a new licensee, to acquire any different title to, or right of occupancy and use in, any of such project property than was necessary to acquire for its own purposes as the Licensee.

Article 7. The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Federal Power Act and the Commission's Rules and Regulations thereunder.

Article 8. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer ~~of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and~~ the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 9. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 10. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Article 11. Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvement of the United States, the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the cost of making the determinations pursuant to the then current regulations of the Commission under the Federal Power Act.

Article 12. The operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Commission may prescribe for the purposes hereinbefore mentioned.

Article 13. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 14. In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or endangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by any other lawful authority for avoiding or eliminating inductive interference.

Article 15. The Licensee shall, 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 the 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 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 16. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 17. The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such reasonable recreational facilities, including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project, as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal or State agencies, after notice and opportunity for hearing.

Article 18. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 19. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 20. The Licensee shall consult with the appropriate State and Federal agencies and, within one year of the date of issuance of this license, shall submit for Commission approval a plan for clearing the reservoir area. Further, the Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. Upon approval of the clearing plan all clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Article 21. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the

Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 22. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 23. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

Section 20

FERC

License

Attachment – Section 21

**OPERATING AGREEMENT
FOR
PURPOSES OF WHEELING AND POWER SALES**

AGREEMENT, dated **JUNE 1**, 2003 by and between Mine Falls Limited Partnership (hereinafter referred to as the "Interconnector"), and Public Service Company of New Hampshire, a New Hampshire Corporation having its principal place of business in Manchester, New Hampshire (hereinafter referred to as "PSNH").

WHEREAS, Interconnector's 3,000 KW Mine Falls electric generating facility (the "Facility"), (SESD # 019) located on the Nashua River in Nashua, New Hampshire, is interconnected with the electric system of PSNH in accordance with applicable New Hampshire Public Utilities Commission ("NHPUC") Orders and federal law; and

WHEREAS, Interconnector desires to, and PSNH agrees to, provide for the interconnection of the Facility with the electric system of PSNH, its successors and permitted assigns, and Interconnector may have the right to sell the electric output of the Facility to PSNH and/or to such other third party purchasers with which Interconnector may make sales arrangements; and

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

WHEREAS, Interconnector and PSNH wish to provide for certain other matters pertaining to discretionary power sales from the Facility;

NOW, THEREFORE, the parties hereby agree as follows:

Article 1. Interconnection and Voltage Characteristics.

The interconnection point shall continue to be that point at which the Facility presently interconnects with the 34.5-KV electric system of PSNH. Under this Agreement, the Interconnector shall receive and pay for the services necessary for the purpose of connecting, and providing the continued connection of, the Facility with the PSNH electrical system, including Pool Transmission

Facilities ("PTF") as defined by NEPOOL, and non-PTF.

Unless PSNH converts its interconnection circuit, all electric energy delivered to PSNH's system from the Facility shall be 34.5 KV, three-phase, sixty hertz.

Article 2. Metering.

The metering shall continue to be configured so as to represent the electric power output delivered to the PSNH electric system. The metering may be installed on the generation side of the transformer provided that transformer losses are subtracted from the measured generation by a suitable method. Interconnector shall be responsible for all costs associated with the metering required for sales to PSNH and/or other third parties from the Facility.

Interconnector has installed and will own, and maintain all metering equipment as referenced in Article 5, to measure the physical flow of electrical energy from the Facility into the PSNH electric system. If at any time the meter is found to be in error by more than two percent fast or slow (+ or - 2%), Interconnector shall cause such meter to be corrected and the meter readings for the period of inaccuracy shall be adjusted to correct such inaccuracy so far as the same can be reasonably ascertained, but no adjustment prior to the beginning of the preceding month shall be made except by agreement of the parties. All tests and calibrations shall be made in accordance with Section V-14 of the NHPUC Rules and Regulations prescribing Standards for Electric Utilities in effect as of September 8, 1972, as amended, and any applicable Rules and Regulations of ISO-New England, Inc. ("ISO"). Interconnector is responsible for assuring that meter tests are performed as required at Interconnector's expense. PSNH's local Division Meter Engineer should be contacted in advance to arrange for said meter testing.

Interconnector shall cause the meter to be tested at any time upon request of either party and, at PSNH's option, in the presence of a representative of PSNH. If such equipment proves accurate within two percent fast or slow (+ or - 2%), the expense of the test shall be borne by the requesting party.

PSNH reserves the right to secure or seal the metering installation, but upon the written request of Interconnector will provide such information regarding, and access to, the metering installation as Interconnector requests. Interconnector is required to record electrical energy physically delivered to the PSNH electric system on an hour-by-hour basis, and to electronically

Attachment – Section 23

Head Office - Algonquin Power 2845 Bristol Circle, Oakville Ontario, Canada L6H 7H7
905-465-4500 – General Line 905-465-4519 – Graham Agnew direct

All Companies below use the Oakville address as the Owner address

None of these sites below has been certified under **another** non-federal jurisdiction's renewable energy portfolio standard. The attached letter from PSNH verifies this.

Mine Falls Limited Partnership (Mine Falls GS) (SESD#019) (ISO 869)

Location: Nashua, NH

Market Area: Real Time Hourly LMP 4002 .Z. NEWHAMPSHIRE – LOAD ZONE

Gross Capacity: 3000kW

In Service Date: January 1986

The Mine Falls Generating Station is a 3.0MW hydroelectric generating station located on the Nashua River near the City of Nashua, New Hampshire. The site is comprised of two turbine-generators housed in a new concrete powerhouse located at the site of a historic concrete dam. The site was commissioned in 1986. The site is connected at 3 phase 34.5kV.

The site is currently being paid at the open market rates from the ISO ID and market zone listed above. A small monthly capacity payment is also being paid as laid out in the PURPA regulations.

Attachment – Section 26

STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

APPLICATION OF MINE FALLS HYDROELECTRIC LIMITED PARTNERSHIP
FOR CLASS IV RENEWABLE ENERGY SOURCE ELIGIBILITY
OF MINE FALLS HYDROELECTRIC PROJECT (FERC NO. 3442)

Pursuant to New Hampshire Admin. Code PUC 2500 Rules

Application Section 26. Owner Affidavit Attesting to Accuracy of the Contents of Mine Falls
Hydroelectric Limited Partnership Application for Class IV Renewable Energy Source Eligibility
Of Mine Falls Hydroelectric Project (FERC No. 3442)

I certify under penalty of law that I have personally examined the information submitted in this Application and all attachments thereto and that, base on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true and accurate.

Done and Dated this ____ Day of December 2012


(Signature)
Ian E. Robertson

(Print Name)
Ian E. Robertson
Chief Executive Officer

(Title of Responsible Official)

Province of Ontario
City of Oakville

Personally appeared the above-named Ian Robertson,
Chief Executive Officer of Algonquin Power Co, owner of Mine Falls Hydroelectric
Limited Partnership and made oath to the statements contained herein on this 18th day or
December 2012.


(Name)
Notary Public/Commission Stamp

