

**MONADNOCK PAPER MILLS, INC.**

c/o HYDRO MANAGEMENT GROUP LLC  
55 UNION STREET, 4<sup>TH</sup> FLOOR  
BOSTON, MA 02108

TELEPHONE: +617-367-0032  
FAX: +207-872-2764  
E-MAIL: SJH@ESSEXHYDRO.COM

April 2, 2014

Debra A. Howland  
Executive Director  
New Hampshire Public Utilities Commission  
21 S. Fruit Street, Concord, NH 03301-2429  
executive.director@puc.nh.gov  
cc: barbara.bernstein@puc.nh.gov

NHPUC 4APR14PM12:51

RE: MONADNOCK PAPER MILLS, INC. APPLICATION FOR RENEWABLE ENERGY  
RESOURCE ELIGIBILITY FOR CLASS IV HYDRO SOURCES WITH A TOTAL  
NAMEPLATE CAPACITY OF ONE MEGAWATT OR LESS

Dear Executive Director Howland,

Monadnock Paper Mills, Inc. is pleased to include one original and two paper copies of three applications for under one MW Class IV eligibility of its Monadnock, Pierce and Paper Mill hydroelectric facilities.

Thank you for your consideration of this matter and please feel free to contact Stephen Hickey at 617-367-0032 or sjh@essexhydro.com with any questions.

Sincerely,

Monadnock Paper Mills, Inc.  
by Hydro Management Group, LLC  
as authorized agent

  
Richard A. Norman

LINKED



State of New Hampshire  
Public Utilities Commission

21 S. Fruit Street, Suite 10, Concord, NH 03301-2429



APPLICATION FORM FOR  
**RENEWABLE ENERGY SOURCE ELIGIBILITY FOR CLASS IV**  
**HYDRO SOURCES WITH A TOTAL NAMEPLATE CAPACITY OF ONE MEGAWATT OR LESS**  
*Pursuant to New Hampshire Administrative Code Puc 2500 Rules, Puc 2505.02 Application Requirements  
Laws of 2012, Chapter 0272*

- Please submit one (1) original and two (2) paper copies of the completed application and cover letter to:

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

- Send an electronic version of the completed application and the cover letter electronically to [executive.director@puc.nh.gov](mailto:executive.director@puc.nh.gov).

The cover letter must include complete contact information and clearly state that the applicant is seeking certification as a Class IV source. Pursuant to Chapter 362-F:11 I, the Commission is required to render a decision on an application within 45 days upon receiving a completed application.

If you have any questions please contact Barbara Bernstein at (603)271-6011 or [Barbara.Bernstein@puc.nh.gov](mailto:Barbara.Bernstein@puc.nh.gov).

Please provide the following:

1. Applicant Name: Monadnock Paper Mills, Inc.

Mailing Address: c/o Hydro Management Group, LLC

55 Union Street, 4<sup>th</sup> Floor

Town/City: Boston State: MA Zip Code: 02108

Primary Contact: Stephen Hickey

Telephone: 617-367-0032 Cell: 857-205-1001

Email address: sjh@essexhydro.com

2. Facility Name: Pierce Dam

(physical address) 1 Cross Street

Town/City: Bennington State: NH Zip Code: 03442

If the facility does not have a physical address, the Latitude & Longitude

(To qualify the electrical production for RECs, the facility must be registered 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](mailto:jwebb@apx.com)

3. The facility's ISO-New England asset identification number, if available. NON39971
  
4. The facility's GIS facility code, if available. NON39971
  
5. A description of the facility including the following:
  - 5.a. The gross nameplate capacity 0.770MW
  - 5.b. The facility's initial commercial operation date 06/1975
  - 5.c. The date the facility began operation, if different than the operation date same as above
  - 5.d. A complete description of the facility **including location, structures and equipment.**

(1) Pierce Dam, 420 feet long and 28 feet high, located 900 feet downstream of the Monadnock Dam and constructed of concrete with two spillway sections, 168 feet long and 122 feet long on a dogleg alignment, provided with 2-foot-high flashboards; (2) a reservoir having minimal pondage; (3) a gated intake structure and powerhouse, located at the right dam abutment, containing two turbine-generator units rated at 220 kW and 550 kW; (4) a tailrace partially encircling an island and re-entering the main channel of the river approximately 600 feet downstream of the main dam; and (6) appurtenant facilities.

6. A copy of all necessary state and federal (FERC) regulatory approvals as **Attachment A**.
  
7. A copy of the title page of the Interconnection Agreement between the applicant and the distribution utility, the page(s) that identifies the nameplate capacity of the facility and the signature pages. *Please provide this information as **Attachment B**.*
  
8. Pursuant to 2505.01(c), no generation facility shall be eligible to acquire new certificates under this Chapter while selling its electrical output at long-term rates established before January 1, 2007. Please provide a copy of the facility's long-term rate agreement as **Attachment C**.
  
9. A description of how the generation facility is connected to the distribution utility.

The site is located in Bennington, NH, and interconnects at 34.5KV to a tap on line 313 which is normally fed radially from Jackman substation. The facility interconnects to the PSNH 34.5KV system through a 3000 KVA, 34.5-2.4 KV transformer bank, connected in a delta-delta configuration. All units generate at 2.4 KV and connect directly to the 2.4 KV bus, which is also the source of power for the plant's 2400 volt

motor load. MPM's 2.4 KV system is an ungrounded delta system.

10. A statement as to whether the facility has been certified under another non-federal jurisdiction's renewable portfolio standard and proof thereof. *Provide documentation as **Attachment D**.*

MSS915 has self-certified with the NEPOOL GIS as a Class II Eligible Resource in the State of Maine.

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

The facility's output will be verified and entered by William P. Short, III. Mr. Short is an approved Independent Monitor in the State of New Hampshire. Mr. Short has no prior business relationship with Monadnock Paper Mills, Inc. and will be paid a flat fee for his services, irrespective of output.

11. An affidavit by the applicant attesting that the contents of the application are accurate. *Use either the Affidavit at the bottom of this page, or provide a separate document as **Attachment E**.*

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

Facility Operator Name: Mark Lombardi

Phone: 603-588-8694

13. Other pertinent information that you wish to include to assist in classification of the facility provide as **Attachment F**.

<b>CHECK LIST: The following has been included to complete the application:</b>	<b>YES</b>
• All contact information requested in the application.	X
• A copy of all necessary state and federal (FERC) regulatory approvals as <b>Attachment A</b> .	X
• A copy of the title page of the Interconnection Agreement between the applicant and the distribution utility, the page(s) that identifies the nameplate capacity of the facility and the signature pages as <b>Attachment B</b> .	X
• A copy of provide a copy of the facility's long-term rate agreement as <b>Attachment C</b>	N/A
• . <b>If applicable</b> , documentation of the hydro facility's certification(s) in other non-federal jurisdiction's renewable portfolio standard program(s) as <b>Attachment D</b> .	X
• A signed and notarized attestation or <b>Attachment E</b> .	X
• A GIS number has been provided or has been requested.	X
• Other pertinent information has been provided (if necessary) as <b>Attachment F</b> .	X
• This document has been printed and notarized.	X
• The original and two copies are included in the packet mailed to Debra Howland, Executive Director of the PUC.	X
• An electronic version of the completed application has been sent to <a href="mailto:executive.director@puc.nh.gov">executive.director@puc.nh.gov</a> .	X

**AFFIDAVIT**

The Undersigned applicant declares under penalty of perjury that contents of this application are accurate.

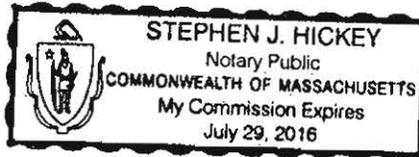
Applicant's Signature *Richard A. Norman* Date 4/2/2014  
Printed Name Richard A. Norman

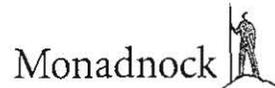
Subscribed and sworn before me this 2 Day of April (month) in the year 2014

County of Suffolk State of Massachusetts

*Stephen J. Hickey*  
Notary Public/Justice of the Peace

My Commission Expires July 29, 2016





Monadnock Paper Mills, Inc.  
117 Antrim Road  
Bennington, New Hampshire  
03442-4205

Phone 603 588 3311  
www.mpm.com

April 2, 2014

Hydro Management Group, LLC as the authorized agent for Monadnock Paper Mills, LLC is authorized to sign the NH Class IV Renewable Energy Source Eligibility applications for the Monadnock, Pierce and Paper Mill hydroelectric facilities.

Sincerely,

A handwritten signature in black ink that reads "M.A. Lombardi".

Mark A. Lombardi  
Vice President, Manufacturing  
Monadnock Paper Mills



## **Attachment A**

FERC Project No. 6597  
FERC Order Issuing License(major) to Monadnock Paper Mills, Inc.  
Dtd August 27, 1984

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION 28 FERC 162, 280

Monadnock Paper Mills, Inc. )

Project No. 6597-000

ORDER ISSUING LICENSE (MAJOR)

( Issued August 27, 1984 )

Monadnock Paper Mills, Inc. (Applicant) filed on August 16, 1982, an application for a license under Part I of the Federal Power Act (Act) for the continued operation and maintenance of the Monadnock Paper Mills Hydro Project No. 6597. <sup>1/</sup> The project is located on the Contoocook River in Hillsborough County, New Hampshire, and affects the interests of interstate or foreign commerce.

Notice of the application has been published and comments have been received from interested Federal, State, and local agencies. No protests or petitions to intervene have been received, and none of the agencies objected to issuance of the license. The significant concerns of the commenting agencies are discussed below.

Safety and Adequacy

The project is located on the Contoocook River and consists of a series of four existing concrete gravity dams: Powder Mill Pond, Monadnock, Pierce, and Paper Mill. The project also consists of three existing power stations with a total installed capacity of 1,945 kW.

The Staff's inspection of the project indicates that the dams and appurtenant structures are well maintained and in sound structural condition. Repair work recommended by the U.S. Army Corps of Engineers (Corps) as a result of its Phase I Inspection, and ordered to be done by the New Hampshire Water Resources Board, was completed in 1983.

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<sup>1/</sup> Authority to act on this matter is delegated to the Director, Office of Hydropower Licensing, under §375.314 of the Commission's regulations, 49 Fed. Reg. 29,369 (1984) (Errata issued July 27, 1984), (to be codified at 18 C.F.R. §375.314). 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 (1983). 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.

8408250341

FERC - DOCKETED  
AUG 27 1984

The dams have a significant hazard potential because of their proximity to downstream developments. Stability analyses and past performance indicate that the dams are safe against overturning and sliding under normal maximum pool. However, Article 24 requires the Licensee to determine the downstream consequences of failure under flood load and, if the hazard potential is unacceptable, to submit a plan and schedule for making the dams safe. It is concluded that the project, under the conditions of this license, is safe and adequate.

#### Recreation

The U.S. Department of the Interior (Interior) stated that the application gives no evidence of consideration for providing public recreational facilities at the project. In particular, Interior believes that the Applicant should investigate the need for canoe portages around the project dams and sites for providing fishing access. The Applicant stated in the Exhibit E that the project is used for canoeing rather than power boating and that the New Hampshire Fish and Game Department stocks trout in the Contoocook River in the vicinity of the project. Article 25 requires the Licensee, in cooperation with the New Hampshire Departments of Fish and Game and Parks and Recreation, to: (1) evaluate the need for and feasibility of developing canoe portages around the project dams and fishing access sites; and (2) if warranted, to construct them and within 1 year of the date of issuance of the license, to file as-built drawings showing the locations and features of the canoe portage trails and fishing access sites. Also under Article 17, the Commission reserves the right to require additional recreational development in the future.

#### Minimum Flow

Interior recommended that the Applicant be required to ensure an instantaneous minimum flow of 70 cubic feet per second (cfs) or inflow, whichever is less, from the project. Interior stated that this is the historical median August flow on the Contoocook River and should adequately protect aquatic resources. Since the 70 cfs would be from the most downstream development of the four developments in the project, Interior also recommended that a 13 cfs minimum flow be released from each of the three developments upstream. At the Pierce Dam Development, Interior recommended that the minimum flow release be from a notch in the spillway on the east side of the island. The Applicant did not object to Interior's recommendations.

The minimum flow releases recommended by Interior and not objected to by the Applicant will provide adequate protection for the aquatic resources at the project and in the Contoocook River downstream of the project. Therefore, Article 26 requires the Licensee to release the aforementioned minimum flows.

Other Environmental Considerations

A water quality certificate for the project was issued by the New Hampshire Water Supply and Pollution Control Commission on October 20, 1983.

Issuance of this license will authorize continued project operation, which began over 60 years ago. On the basis of the record, and Staff's independent environmental analysis, issuance of a license for the project, as conditioned herein, will not constitute a major Federal action significantly affecting the quality of the human environment.

Other Aspects of Comprehensive Development

The project is not in conflict with any planned or potential development of the Contoocook River and is best adapted to the comprehensive development of the basin upon compliance with the terms and conditions of this license. The power potential at the Powder Mill Pond Dam is undeveloped, and therefore, Article 27 requires the Licensee to submit a feasibility study for installing additional generating capacity and, if additional capacity is feasible, the Licensee shall simultaneously file a plan and schedule and an application to amend this license. The project generates approximately 6 GWh annually, of which 75 percent is utilized by the Monadnock Paper Mills and 25 percent is sold to the Public Service Company of New Hampshire. Under Article 9 of this license, the Commission retains the authority to require the Licensee to install additional generating capacity that may be economically feasible.

It is concluded that, as conditioned in this license, Project No. 6597 is best adapted to a comprehensive plan for development of the Merrimack River basin for beneficial public uses and that issuance of this license is in the public interest.

It is ordered that:

(A) This license is issued to Monadnock Paper Mills, Inc. (Licensee), of Bennington, New Hampshire, under Part I of the Federal Power Act (Act) for a period effective the first day of the month in which this order is issued, and terminating in 30 years from the first day of the month in which this order is issued, for the continued operation and maintenance of the Monadnock Paper Mills Hydro Project No. 6597, located in Hillsborough County, New Hampshire, on the Contoocook River affecting the interests of interstate or foreign commerce. This license is subject to the terms and conditions of the Act, which is incorporated by reference as part of the license, and subject to the regulations the Commission issues under the provisions of the Act.

(B) The Monadnock Paper Mills Hydro Project No. 6597 consists of:

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

<u>Exhibit G</u>	<u>FERC No. 6597-</u>	<u>Titled</u>
Sheet 1	1	General Location Map
Sheet 2	2	Detailed Location Map
Sheet 3	3	Project Boundary

(2) Project works consisting of four developments including:

(i) (1) Powder Mill Dam, 366 feet long and 18.6 feet high, constructed of concrete with a 228-foot-long spillway section provided with 2-foot-high flashboards; (2) a regulating reservoir with approximately 4 days pondage at a flow of 300 cfs or about mean flow of the river; (3) a 4-foot by 4-foot gated sluiceway at the left of the spillway, and a gatehouse and 4-foot-diameter outlet works pipe, at the right of the spillway, regulating downstream flow.

(ii) (1) Monadnock Dam, 500 feet long and 22 feet high, located 0.8 mile downstream of Powder Mill Dam and constructed of concrete with two spillway sections, 115 feet long and 50 feet long, provided with 2-foot-high flashboards, and with earthen embankments containing concrete core walls at both abutments; (2) a reservoir having minimal pondage; (3) a gated intake structure and powerhouse, located near the left dam abutment, containing two turbine-generator units rated at 125 kW and 300 kW; (4) a tailrace re-entering the river approximately 100 feet downstream of the dam; and (5) appurtenant facilities.

(iii) (1) Pierce Dam, 420 feet long and 28 feet high, located 900 feet downstream of Monadnock Dam and constructed of concrete with two spillway sections, 168 feet long and 122 feet long on a dogleg alignment, provided with 2-foot-high flashboards; (2) a reservoir having minimal pondage; (3) a gated intake structure and powerhouse, located at the right dam abutment, containing two turbine-generator units rated at 220 kW and 550 kW; (4) a tailrace partially encircling an island and re-entering the main channel of the river approximately 600 feet downstream of the main dam; and (5) appurtenant facilities.

(iv) (1) Paper Mill Dam, 280 feet long and 19 feet high, located 1,200 feet downstream of Pierce Dam and constructed of concrete with a 142-foot-long spillway section; (2) a canal headworks, just upstream of the right dam abutment, and a 300-foot-long canal with concrete walls leading to a forebay; (3) an intake structure and a steel penstock, 10 feet in diameter and approximately 200 feet long; (4) a powerhouse containing a turbine-generator unit rated at 750 kW; (5) a tailrace re-entering the river approximately 800 feet downstream of the dam; and (6) appurtenant facilities.

The project also consists of: (v) the 2.3-kV generator leads; (vi) the 2,190-foot-long, 2.3-kV overhead transmission line between the Monadnock Hydro Station and the 2.3-kV mill supply bus at the mill building; (vii) the 2.3-kV facilities connecting the Pierce Hydro Station generation to the 2,190-foot-long line; and (viii) appurtenant facilities to connect project generation to the 2.3-kV mill supply bus.

The combined total generating capacity of the project is 1,945 kW.

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

Exhibit A - Section entitled "Project Description and Proposed Mode of Operation," as shown on pages 11 through 17 of the application.

<u>Exhibit F</u>	<u>FERC No. 6597-</u>	<u>Title</u>
Sheet 1	4	Site Plan - Paper Mill Site
Sheet 2	5	Paper Mill Dam, Plan and Elevation
Sheet 3	6	Paper Mill Dam, Turbine Arrangement

<u>Exhibit F</u>	<u>FERC No. 6597-</u>	<u>Title</u>
Sheet 4	7	Site Plan - Pierce Station
Sheet 5	8	Powerhouse Details, Pierce Station
Sheet 6	9	Site Plan, Monadnock Powder Station
Sheet 7	10	Powerhouse Details, Monadnock Station
Sheet 8	11	Powerhouse Section, Monadnock Station
Sheet 9	12	Powder Mill Dam, Plan, Elevation
Sheet 10	12	Single Line Elec. Diagram
Sheet 11	14	Monadnock Paper Mills Hydroelectric Facility (Dam Sections)

(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) Exhibits A, F, and G, designated in ordering paragraph (B) above, are approved and made a part of the license.

(D) This license is also subject to the terms and conditions set forth in Form L-10 (revised October, 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting the Interests 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 6 months from the issuance date of this license file, for approval of the Director, Office of Hydropower Licensing, a report based on stability and dam break analyses, that identifies and quantifies the hazard to downstream life and property of failure of any susceptible project structure(s). The stability analyses shall determine what flood would cause instability of the structure(s). The dam break analyses

shall encompass floods which could cause dam failure and flood flows up to and including either the PMP or the flood flow where dam failure would cause no significant increase in hazard to downstream life and property. The report shall fully document all reconnaissance and other studies made in its preparation. In the event that failure of any project structure(s) under flood conditions presents a hazard to human life or would cause significant property damage then the Licensee shall simultaneously file, for approval of the Director, Office of Hydropower Licensing, a plan and schedule for modifying the project to ensure that the project can safely pass floods up to and including the PMP.

Article 25. The Licensee shall, in consultation with the New Hampshire Departments of Fish and Game, and Parks and Recreation, evaluate the need for and feasibility of developing canoe portage trails around the project dams and fishing access sites at the project developments within 6 months from the date of issuance of this license. If warranted, the Licensee shall construct the portages and fishing access sites and within 1 year of the date of issuance of the license, shall file with the Commission as-built drawings as necessary to show the locations and features of the canoe portage trails and fishing access sites.

Article 26. The Licensee shall discharge from the Monadnock Hydroelectric Project, a continuous minimum flow of 70 cubic feet per second (cfs), as measured immediately below the tailrace of the Pierce Mill Dam or the inflow to the project, whichever is less, for the protection of aquatic resources in the Contoocook River. Licensee shall also discharge from each of the other three project developments (Powder Mill, Monadnock, and Paper Mill) a continuous minimum flow of 13 cfs or inflow to the developments, whichever is less, for protection of the aquatic resources within the project area. The release from the Pierce Mill Development shall be from a notch in the spillway on the east side of the island. Minimum flows may be temporarily modified if required by operating emergencies beyond the control of the Licensee and for short periods upon mutual agreement between the Licensee and the New Hampshire Fish and Game Department.

Article 27. The Licensee shall, within 1 year from the date of issuance of the license, prepare and file with the Commission a feasibility analysis of installing additional generating capacity at the Powder Mill Pond Dam, taking into account, to the extent reasonable, all benefits including any contribution to the conservation of non-renewable energy resources. If the study shows additional capacity to be economically feasible, the Licensee shall simultaneously file a plan and schedule and an application to amend its license to install that capacity.

Article 28. The Licensee shall pay the United States the following annual charge, 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 2,600 horsepower.

Article 29. Pursuant to Section 10(d) of the Act, after 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 30. (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 5 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 Hydropower Licensing, 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 recreational agencies, as appropriate, and the State Historic Preservation Officer.

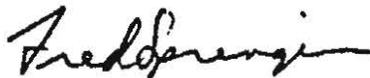
(2) Before conveying the interest, the Licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on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

(E) The Licensee's failure to file a petition appealing this order to the Commission shall constitute acceptance of this license. In acknowledgment of acceptance of this order and its terms and conditions, it shall be signed by the Licensee and returned to the Commission within 60 days from the date this order is issued.



for  
Quentin A. Edson  
Director, Office of  
Hydropower Licensing

Project No. 6597-000

IN TESTIMONY of its acknowledgment of acceptance of all of the terms and conditions of this order, Monadnock Paper Mills, Inc. this \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, has caused its corporate 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 CONSTRUCTED 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 area and project works shall be 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.

Article 4. The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands of the United States, 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 such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration 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 submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. 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 pursuant to the then current regulations 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 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. 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.

## **Attachment B**

PSNH Interconnection Agreement  
Dtd May 18, 1992

6/16 Copy to  
M. Cole

#070



# FILE COPY

## INTRA-COMPANY BUSINESS MEMO

Public Service of New Hampshire

Subject Final Interconnection Report - Monadnock Paper Mills (SESD # 070)

From	P.J. Bradshaw	District	Date May 18, 1992
To	S.B. Wicker, Jr.		Reference

cc: (No Attachments)  
 D.L. Bacon  
 J.A.S. Breton  
 R.E. Evans  
 M.F. Fraser  
 R. Leatherbee  
 R.T. Hybsch  
 R.G. Prince  
 J. Van Oudenhove  
 G.H. Crotto

Circulated Copy:(No Attachments)  
 P.A. Magoun  
 P.C. Martin

Enclosed is the final interconnection report for Monadnock Paper Mills (SESD #070). Please forward it to the developer and make a complete internal distribution.

P.J. Bradshaw  
 ext 3157  
 e-mail "BRADSHAW"

PJB/ps2  
 FIN070.WPF

PSNH INTERCONNECTION REPORT FOR  
CUSTOMER GENERATION

Monadnock Paper Mills

SESD SITE NO. 070

P.J. Bradshaw  
May 18, 1992

sufficient water exists and units are available. The 750 KVA unit in the plant itself is usually the first to be started if water is low. However, there are no hard and fast unit commitment procedures. Any combination of units could be running at a given time. None of the units have black-start capability. Without an energized PSNH power supply to synchronize to, none can be brought on line.

With the exception of the recently added 200 KVA induction machine, the generation at MPM has been in service for decades. Each of the machines has some level of fault protection, however the site as presently configured does not meet modern PSNH interconnection requirements for a site of this capacity. The primary concern is the delta-delta transformer that serves as a GSU. Since there is no ground source at MPM, PSNH customers connected phase to ground on the 313 line could be exposed to excessive voltages if generation at the plant continued to run after the breaker at Jackman s/s tripped for a line to ground fault.

Rather than require that each machine at MPM be brought into compliance with today's criteria, this report will specify a protection and control package to be implemented primarily at the interface between PSNH and MPM (See sketch SK-PJB-070-3).

## B. Electrical Components

### 1. Plant Steam Unit

Generator: Toshiba induction, 200 KW, .80 PF, 2400V, 1800 RPM  
Turbine: Worthington S2R, 260 HP @ 4000 RPM  
Governor: Woodward 505 electronic governor.

### 2. Plant Hydro

Generator: Electric Machinery synchronous, 750 KVA, 261a, .80 PF, 2200V, 180 RPM.  
Exciter: 14 KW, 125V, 112a, 750 RPM  
Turbine: Horizontal shaft hydroturbine, 1000 HP

### 3. Pierce Station #1

Generator: Westinghouse synchronous, 500 KVA, 120a, 2400V, 150 RPM.  
Exciter: Westinghouse belt driven, 21KW, 125V, 168a, 1200 RPM.  
Turbine: Vertical shaft hydroturbine.

### 4. Pierce Station #2

Generator: Westinghouse synchronous, 220 KVA, 53a, 2400V, 225 RPM.  
Exciter: Westinghouse belt driven, 11.5 KW, 125V, 92a, 1200 RPM.  
Turbine: Vertical shaft hydroturbine.

5. Monadnock Station #1  
Generator: Electric Machinery synchronous, 125 KVA, 31.5a, .80 PF 2300 V, 180 RPM.  
Exciter: Static  
Turbine: Vertical shaft hydroturbine.

6. Monadnock Station #2  
Generator: Westinghouse synchronous, 375 KVA, 94a, .80 PF, 2300 V, 257 RPM.  
Exciter: Westinghouse, shaft mounted, 10 KW, 125V, 80a, 257 RPM, 31.5a  
Turbine: Vertical shaft hydroturbine.

7. Generator Stepup Transformer: 3-1000 KVA, 34400-4360Y/2520V, Z=6.05%, configured as Delta-Delta bank.

8. Grounding Bank (new requirement): 3-100 KVA, Z=3.5% - 4.5%. See section IV.A.

9. Three phase vacuum interrupting device (new requirement). See section IV.A.

10. Three phase air break switch (new requirement). See section IV.A.

### III. PSNH REQUIREMENTS - GENERAL

#### A. Safety Considerations

1. The connection of the facility to the PSNH system must not compromise the safety of PSNH's customers, personnel, or the owner's personnel.

2. The generating facility must not have the capability of energizing a de-energized PSNH circuit.

3. An emergency shutdown switch with facility status indicator lights, and a disconnecting device with a visible open shall be made available for unrestricted use by PSNH personnel. The operation of the switch shall cause all of the facility's generation to be removed from service, and shall block all automatic startup of generation until the switch is reset. The status lights, mounted with the shutdown switch, shall be located outdoors at a position acceptable to PSNH operating division personnel. A red light shall indicate that the facility has generation connected to the PSNH system. A green light shall indicate that all generation is disconnected from the PSNH system. The lights shall be driven directly from auxiliary switches located on the breakers tripped by the shutdown switch. The disconnecting device with visible open shall be located between the PSNH system and the facility's generation.

**Attachment C**

Long-term Rate Agreement  
**NOT APPLICABLE**

## **Attachment D**

Maine Class II RPS Certification  
NON39971: UNDER 1 MW – PIERCE DAM

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Monadnock Paper Mills, Inc. - MONADNOCK

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### Generator Information

NEPOOL Generator: No

GIS Unit ID: 39971

Plant Name: UNDER 1MW

Unit Name: \* PIERCE DAM

Status: Approved

Name Plate Capacity: \* 0.770 (MW)

Location of generating unit: \* New England (ISO New England Control Area)

City: \* BENNINGTON

State: \* NEW HAMPSHIRE

#### Labor Characteristics

Majority of employees operating at generation plant are employed under collective bargaining agreement:  (check for yes)

If generating plant experienced a labor dispute in the most recent calendar year, replacement workers were used:  (check for yes)

#### Vintage

Vintage (month and year of commercial operation): \* 06/1975 (format: MM/YYYY)

Repowering/derate date: (format: MM/YYYY)

Capacity addition/subtraction: (MW)

Refurbishment date: (format: MM/YYYY) (Relevant to Maine RPS)

Date Operation Recommended after at Least Two Years of Not Operating: (format: MM/YYYY) (Relevant to Maine RPS)

Date recognized by System Operators as capacity resource after not being recognized as a: (format: MM/YYYY) (Relevant to Maine RPS)

capacity resource for at least two years:

FERC hydroelectric license relicensing date:

(format: MM/YYYY)

Emissions Reporting

CEM Reporting:

(check for yes)

Ability to Cogenerate Electricity and Steam:

(check for yes)

ORIS PL:

(1 - 6 numeric characters)

Emissions Unit ID(s):

(1 - 6 alphanumeric characters, separate multiple ids with semicolons)

Peer unit name and address (if not reporting actual generator emissions):

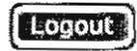
Fuel Type: \*

Single Fuel  Multi Fuel

Hydroelectric/Hydropower

\* Required Field

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Monadnock Paper Mills, Inc. - MONADNOCK

Change Password

### Generator Information

#### Hydroelectric/Hydropower

- Hydro - run-of-the-river hydropower facility that has a nameplate generating capacity of not more than five megawatts, does not cause an appreciable change in the river flow, and began operation prior to July 1, 2003

**Fuel Type Attributes:**  
(select all that apply)

#### Connecticut

**Class I Renewable Energy Source:**

(check for yes) -- If yes Reveal Output to Regulators must be checked

**Class I low emission eligible energy source ("LREC"):**

(check for yes) -- If yes Reveal Output to Regulators must be checked

**Class II Renewable Energy Source:**

(check for yes) -- If yes Reveal Output to Regulators must be checked

**Class III Portfolio Standard:**

No -- If yes Reveal Output to Regulators must be checked

**State Certification Number:**

**Date of Eligibility:**

 (format: MM/YYYY)

**CT CEO Eligible:**

(check for yes)

**R-O-R Hydro: Percentage Qualifying as Class I:**

#### Massachusetts

**RPS Class I Renewable Generation Unit:**

(check for yes)

**Percentage of Generation Qualifying as RPS Class I: \*\***

**Solar Carve-Out Unit:**

(check for yes)

**RPS Class II Renewable Generation Unit:**

(check for yes)

**Percentage of Generation Qualifying as RPS Class II: \*\***

**RPS Class II Waste Energy Generation Unit:**

(check for yes)

APS Alternative Generation Unit:

(check for yes)

Generation level per year or Energy imported per year above which qualifies as RPS New Renewable Resource:

(MWh)

RPS Statement Of Qualification Number:

(format: AB1234YY)

Eligible MA Renewable for NOx allowances claims from Public Benefit set-a-side:

(check for yes)

MA Renewable NOx State Certification Number:

Maine

Class I New Renewable Energy Resource Qualification:

(check for yes)

Class II Eligible Resource:

(check for yes)

Community Based Renewable Energy:

(check for yes)

Eligible for CO2 Netting:

(check for yes)

State Certification Number:

Date of Eligibility:

(format: MM/YYYY)

Rhode Island - Existing Renewable Energy Resource

Existing Renewable Energy Resource:

(check for yes)  
Requires an Independent Verifier for Non-Nepool Generator if checked

Generation level per year above which qualifies as an Existing Renewable Energy Resource:

State Certification Number:

Date of Eligibility:

(format: MM/YYYY)

Percentage of average annual production meeting the requirements for eligibility as an Existing Renewable Energy Resource: \*\*

Rhode Island - New Renewable Energy Resource

New Renewable Energy Resource:

(check for yes)  
Requires an Independent Verifier for Non-Nepool Generator if checked

Generation level per year above which qualifies as a New Renewable Energy Resource:

State Certification Number:

Date of Eligibility:

(format: MM/YYYY)

Percentage of average annual

production attributable to the efficiency improvements of additions of capacity placed in service after Dec 31, 1997: \*\*

**New Hampshire**

**Class I Source:**

 (check for yes)

**Average annual electric production (in MWh) from a facility other than hydroelectric from 2004 through 2006, or for the first 36 months after commercial operation if that date is after December 31, 2001:**

 (MWh)

**Average annual production (in MWh) of a hydroelectric facility from the later of January 1, 1986 or the date of first commercial operation through December 31, 2005 (if such a facility was upgraded or expanded during this baseline period, actual generation should be adjusted to estimate the average annual production that would have occurred had the upgrade or expansion been in place for this entire period):**

 (MWh)

**Class I Useful Thermal Energy:**

 (check for yes)

**Class II Source:**

 (check for yes)

**Class III Source:**

 (check for yes)

**Class IV Source:**

 (check for yes)

**State Certification Number:**

**Date of Eligibility:**

 (format: MM/YYYY)

**Meter**

**Independent Verifier:**

 Bill Short

**Green-E Certification**

**Green-E Eligible:**

 (check for yes)

**Green-E Fuel Type:**

**Low Impact Hydro Institute Certification**

**Low Impact Hydro Institute Eligible:**

 (check for yes)

**Reveal Output to Regulators:**

 (check for yes)

\* Required Field \*\* For Existing Renewable Energy Resource + New Renewable Energy Resource, then total percenatge must = 100% or leave both blank

[Privacy Policy](#)

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12.3 Build

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**Attachment E**

Affidavit

Applicant used Affidavit provided in the Application

**Attachment F**

Other Pertinent Information

Request for Further Review of Monadnock Paper Mills Inc. Class IV Eligibility  
Sent to Jack Ruderman, Director, Sustainable Energy Division

Dtd April 2, 2014

**HYDRO MANAGEMENT GROUP, LLC**

55 UNION STREET, 4<sup>TH</sup> FLOOR  
BOSTON, MA 02108

TELEPHONE: +617-367-0032  
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April 2, 2014

Jack Ruderman  
Director, Sustainable Energy Division  
New Hampshire Public Utilities Commission  
21 S. Fruit Street, Concord, NH 03301-2429  
jack.ruderman@puc.nh.gov

RE: REQUEST FOR FURTHER REVIEW OF MONADNOCK PAPER MILLS,  
INC. CLASS IV ELIGIBILITY

Dear Mr. Ruderman,

Monadnock Paper Mills, Inc. owner and operator of the Monadock (0.425 MW), Pierce (0.770 MW), and Paper Mill (0.750 MW) hydroelectric facilities (the MPM facilities) located on the Contoocook River, in Hillsborough County, New Hampshire, is seeking to qualify the MPM facilities as Class IV RPS resources in the State of New Hampshire. Attached are copies of the applications MPM just submitted to the Puc.

On Wednesday, January 15, 2014, Ms. Michelle Hamm, Environmental Services Manager for Monadnock Paper Mills, Inc. ("MPM") sent an email to you as Director of Sustainable Energy with the New Hampshire Public Utilities Commission inquiring if MPM's Monadock (0.425 MW), Pierce (0.770 MW), and Paper Mill (0.750 MW) hydroelectric facilities are eligible for qualification as NH Class IV REC facilities. On January 15, 2014, you replied that "Because the combined capacity of your dams is more than 1 MW, you would need fish ladders [to be eligible for NH Class IV RECs].

For the reasons stated below, Monadnock Paper Mills Inc. ("MPM") believes that MPM's facilities individually qualify as under 1 MW Class IV resources

under RSA 362-F:4, IV (B) as amended in 2012, notwithstanding the New Hampshire Public Utilities Commission (the “Puc”) decisions in Dockets 08-053 *PSNH Class IV REC Application for Eight Existing Small Hydroelectric Facilities* and 10-151 *Holyoke Gas and Electric Department*.

I. RSA 362-F4, IV(B) and the Factual Attributes of the Monadnock Projects

The criteria that an existing under 1 MW hydroelectric facility must meet in order to qualify for Class IV RECs in New Hampshire are set out in RSA 362-F:4, IV (B), as follows:

Class IV (Existing Small Hydroelectric) shall include the production of electricity from hydroelectric energy, provided the facility: (1) Began operation prior to January 1, 2006; (2) When required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects; and (B) Has a total nameplate capacity of one MW or less as measured by the sum of the nameplate capacities of all generators at the facility, is in compliance with applicable Federal Energy Regulatory Commission fish passage restoration requirements, and is interconnected with an electric distribution system located in New Hampshire.

Each of the MPM facilities satisfies the commercial date of operation, water quality, and installed capacity criteria for Class IV eligibility established in RSA 362-F4, IV(B) (the RPS Statute). The remaining question relates to whether the capacity of each of the three facilities can be considered individually or whether the combined capacity of the three facilities should be used to determine Class IV eligibility.

FERC Order Issuing License (major) No. 6597 (the license) was issued on August 27, 1984 to Monadnock Paper Mills, Inc. The license describes three separate and distinct hydroelectric facilities:

- (i) (1) Monadnock Dam, 500 feet long and 22 feet high, located 0.8 mile downstream of Powder Mill Dam and constructed of concrete with two spillway sections, 115 feet long and 50 feet long, provided with 2-foot-high flashboards, and with earthen embankments containing concrete core walls at both abutments; (2) a reservoir having minimal pondage; (3) a gated intake structure and powerhouse, located near the left dam abutment, containing two turbine-generator units rated at 125 kW and 300 kW; (4) a tailrace re-entering the river approximately 100 feet downstream of the dam; and (5) appurtenant facilities.
  
- (ii) (1) Pierce Dam, 420 feet long and 28 feet high, located 900 feet downstream of the Monadnock Dam and constructed of concrete with two spillway sections, 168 feet long and 122 feet long on a dogleg alignment, provided with 2-foot-high flashboards; (2) a reservoir having minimal pondage; (3) a gated intake structure and powerhouse, located at the right dam abutment, containing two turbine-generator units rated at 220 kW and 550 kW; (4) a tailrace partially encircling an island and re-entering the main channel of the river approximately 600 feet downstream of the main dam; and (5) appurtenant facilities.

- (iii) (1) Paper Mill Dam, 280 feet long and 19 feet high, located 1,200 feet downstream of the Pierce Dam and constructed of concrete with a 142-foot-long spillway section; (2) a canal headworks, just upstream of the right dam abutment, and a 300-foot-long canal with concrete walls leading to a forebay; (3) an intake structure and steel penstock, 10 feet in diameter and approximately 200 feet long; (4) a powerhouse containing a turbine-generator unit rated at 750 kW; (5) a tailrace re-entering the river approximately 800 feet downstream of the dam; and (6) appurtenant facilities.

Although the MPM facilities are jointly licensed under FERC License No. 6597 (see Appendix 1) the three facilities are separately described and we believe they should be considered individually. Each facility began operation in the mid-1970s. Each facility was issued a separate water quality certification from the New Hampshire Department of Environmental Services as recently as January 31, 2014. The sum of the nameplate capacities within each facility: Monadnock (0.425 MW); Pierce (0.770 MW); and Paper Mill (0.750 MW) is under 1 MW. Each facility has its own control systems, generation, metering equipment, dam, and impoundment. Separate distribution lines connect the Monadnock, Pierce and Paper Mill facilities to the PSNH interconnection transformer and the facilities are separately enumerated in the PSNH interconnection agreement. The three facilities have separate ISO-NE asset identification numbers and GIS facility codes. As a result, the facilities are operated independently from one another. Aside from being in succession on the Contoocook river, the only other similarities between the projects are

common ownership and a common FERC License which was done for administrative convenience.

II. DE 08-053, PSNH Class IV REC Application for Eight Existing Small Hydroelectric Facilities

In DE 08-053, the Puc denied PSNH's request to individually qualify below 5 MW generating units located within its Amoskeag (16 MW), Ayers Island (8.4 MW), Eastman Falls (6.4 MW), and Garvins Falls (12.2 MW) hydroelectric facilities as NH Class IV REC eligible "sources." In this case, PSNH sought to disaggregate the total installed nameplate capacity of the multi unit powerhouse into separate units which were below the statutory capacity limit. The Puc interpreted the word "source" (aka facility, powerhouse, or station) as used in RSA 362-F:4,IV to mean the total nameplate of all the generating units in the facility. The Puc then applied the 5 MW cap to the sum of the nameplate capacities of all the generating units at the facility rather than the individual nameplate of the units. The Puc therefore denied the NH Class IV eligibility of the Amoskeag facility, Ayers Island facility, Eastman Falls facility, and Garvins Falls facility because the sum of the generating units at each facility was over 5MW and none of the facilities had upstream and downstream diadromous fish passage facilities. (see Appendix 2)

The Puc made clear in DE 08-053 that the term "source" or "facility" means a single dam and the 5 MW cap is to be interpreted as the sum of all of the generators located at that dam and within the powerhouse.

The Monadnock projects consist of three separate and distinct powerhouses, dams and appurtenant equipment and each facility has a total nameplate capacity of under 1 MW.

### III. DE 10-151, Holyoke Gas & Electric Department

In 2010, the Holyoke Gas and Electric Department (“Holyoke”) applied under RSA 362-F:4, IV for Class IV Renewable Energy Certification for fourteen components of the Holyoke hydropower system. With respect to six of the fourteen stations, although jointly licensed as part of the 42.955 MW Holyoke Project (“FERC Project 2004”), Holyoke contended that each station should be considered individually since each station had an installed capacity under 5 MW and qualified therefore under RSA 362-F:4, IV. Holyoke then addressed a common issue for all fourteen stations. Holyoke asserted all fourteen stations were certifiable with regard to fish passage installations because they relied on the upstream and downstream fish passage associated with the 31 MW Hadley Falls facility. The Puc found that “Inasmuch as the fourteen hydroelectric facilities listed in your application do not each have both upstream and downstream diadromous fish passages, the Holyoke facilities do not meet the requirements set forth in RSA 362-F:4, IV. (see Appendix 3)

However, MPM believes that the Puc’s decision in DE 10-151 is relevant to MPM’s inquiry to you insofar as the Puc stated in its decision that “RSA 362-F:4, IV relates to the total capacity of a hydroelectric facility, *i.e.*, a *dam*, not to the capacity of a turbine that is a component part of that facility.” MPM believes the Puc’s decision in DE 10-151, made it explicitly clear that the term facility describes a

specific dam, a single location where one more generators are located. As it pertains to the present issue, Monadnock Paper Mill Inc. is applying for Class IV qualification for three separate and distinct facilities, each independently developed and operated with the sum of the name plate capacities of the generators at each of facilities being under 1 MW.

V. Conclusion

For the reasons set forth herein, Monadnock respectfully requests that the Puc find that MPM's Monadnock, Pierce and Paper Mill hydroelectric facilities are eligible for Class IV.

Thank you for your consideration of this matter and please feel free to contact me at 617-367-0032 or [sjh@essexhydro.com](mailto:sjh@essexhydro.com) with any questions.

Sincerely,

Monadnock Paper Mills, Inc.  
by Hydro Management Group, LLC  
as authorized agent



Richard A. Norman

## **Appendix 1**

FERC Project No. 6597  
FERC Order Issuing License(major) to Monadnock Paper Mills, Inc.  
dtd August 27, 1984

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION 28 FERC 162,280

Monadnock Paper Mills, Inc. )

Project No. 6597-000

ORDER ISSUING LICENSE (MAJOR)

( Issued August 27, 1984 )

Monadnock Paper Mills, Inc. (Applicant) filed on August 16, 1982, an application for a license under Part I of the Federal Power Act (Act) for the continued operation and maintenance of the Monadnock Paper Mills Hydro Project No. 6597. <sup>1/</sup> The project is located on the Contoocook River in Hillsborough County, New Hampshire, and affects the interests of interstate or foreign commerce.

Notice of the application has been published and comments have been received from interested Federal, State, and local agencies. No protests or petitions to intervene have been received, and none of the agencies objected to issuance of the license. The significant concerns of the commenting agencies are discussed below.

Safety and Adequacy

The project is located on the Contoocook River and consists of a series of four existing concrete gravity dams: Powder Mill Pond, Monadnock, Pierce, and Paper Mill. The project also consists of three existing power stations with a total installed capacity of 1,945 kW.

The Staff's inspection of the project indicates that the dams and appurtenant structures are well maintained and in sound structural condition. Repair work recommended by the U.S. Army Corps of Engineers (Corps) as a result of its Phase I Inspection, and ordered to be done by the New Hampshire Water Resources Board, was completed in 1983.

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<sup>1/</sup> Authority to act on this matter is delegated to the Director, Office of Hydropower Licensing, under §375.314 of the Commission's regulations, 49 Fed. Reg. 29,369 (1984) (Errata issued July 27, 1984), (to be codified at 18 C.F.R. §375.314). 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 (1983). 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.

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The dams have a significant hazard potential because of their proximity to downstream developments. Stability analyses and past performance indicate that the dams are safe against overturning and sliding under normal maximum pool. However, Article 24 requires the Licensee to determine the downstream consequences of failure under flood load and, if the hazard potential is unacceptable, to submit a plan and schedule for making the dams safe. It is concluded that the project, under the conditions of this license, is safe and adequate.

#### Recreation

The U.S. Department of the Interior (Interior) stated that the application gives no evidence of consideration for providing public recreational facilities at the project. In particular, Interior believes that the Applicant should investigate the need for canoe portages around the project dams and sites for providing fishing access. The Applicant stated in the Exhibit E that the project is used for canoeing rather than power boating and that the New Hampshire Fish and Game Department stocks trout in the Contoocook River in the vicinity of the project. Article 25 requires the Licensee, in cooperation with the New Hampshire Departments of Fish and Game and Parks and Recreation, to: (1) evaluate the need for and feasibility of developing canoe portages around the project dams and fishing access sites; and (2) if warranted, to construct them and within 1 year of the date of issuance of the license, to file as-built drawings showing the locations and features of the canoe portage trails and fishing access sites. Also under Article 17, the Commission reserves the right to require additional recreational development in the future.

#### Minimum Flow

Interior recommended that the Applicant be required to ensure an instantaneous minimum flow of 70 cubic feet per second (cfs) or inflow, whichever is less, from the project. Interior stated that this is the historical median August flow on the Contoocook River and should adequately protect aquatic resources. Since the 70 cfs would be from the most downstream development of the four developments in the project, Interior also recommended that a 13 cfs minimum flow be released from each of the three developments upstream. At the Pierce Dam Development, Interior recommended that the minimum flow release be from a notch in the spillway on the east side of the island. The Applicant did not object to Interior's recommendations.

The minimum flow releases recommended by Interior and not objected to by the Applicant will provide adequate protection for the aquatic resources at the project and in the Contoocook River downstream of the project. Therefore, Article 26 requires the Licensee to release the aforementioned minimum flows.

Other Environmental Considerations

A water quality certificate for the project was issued by the New Hampshire Water Supply and Pollution Control Commission on October 20, 1983.

Issuance of this license will authorize continued project operation, which began over 60 years ago. On the basis of the record, and Staff's independent environmental analysis, issuance of a license for the project, as conditioned herein, will not constitute a major Federal action significantly affecting the quality of the human environment.

Other Aspects of Comprehensive Development

The project is not in conflict with any planned or potential development of the Contoocook River and is best adapted to the comprehensive development of the basin upon compliance with the terms and conditions of this license. The power potential at the Powder Mill Pond Dam is undeveloped, and therefore, Article 27 requires the Licensee to submit a feasibility study for installing additional generating capacity and, if additional capacity is feasible, the Licensee shall simultaneously file a plan and schedule and an application to amend this license. The project generates approximately 6 GWh annually, of which 75 percent is utilized by the Monadnock Paper Mills and 25 percent is sold to the Public Service Company of New Hampshire. Under Article 9 of this license, the Commission retains the authority to require the Licensee to install additional generating capacity that may be economically feasible.

It is concluded that, as conditioned in this license, Project No. 6597 is best adapted to a comprehensive plan for development of the Merrimack River basin for beneficial public uses and that issuance of this license is in the public interest.

It is ordered that:

(A) This license is issued to Monadnock Paper Mills, Inc. (Licensee), of Bennington, New Hampshire, under Part I of the Federal Power Act (Act) for a period effective the first day of the month in which this order is issued, and terminating in 30 years from the first day of the month in which this order is issued, for the continued operation and maintenance of the Monadnock Paper Mills Hydro Project No. 6597, located in Hillsborough County, New Hampshire, on the Contoocook River affecting the interests of interstate or foreign commerce. This license is subject to the terms and conditions of the Act, which is incorporated by reference as part of the license, and subject to the regulations the Commission issues under the provisions of the Act.

(B) The Monadnock Paper Mills Hydro Project No. 6597 consists of:

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

<u>Exhibit G</u>	<u>FERC No. 6597-</u>	<u>Titled</u>
Sheet 1	1	General Location Map
Sheet 2	2	Detailed Location Map
Sheet 3	3	Project Boundary

(2) Project works consisting of four developments including:

(i) (1) Powder Mill Dam, 366 feet long and 18.6 feet high, constructed of concrete with a 228-foot-long spillway section provided with 2-foot-high flashboards; (2) a regulating reservoir with approximately 4 days pondage at a flow of 300 cfs or about mean flow of the river; (3) a 4-foot by 4-foot gated sluiceway at the left of the spillway, and a gatehouse and 4-foot-diameter outlet works pipe, at the right of the spillway, regulating downstream flow.

(ii) (1) Monadnock Dam, 500 feet long and 22 feet high, located 0.8 mile downstream of Powder Mill Dam and constructed of concrete with two spillway sections, 115 feet long and 50 feet long, provided with 2-foot-high flashboards, and with earthen embankments containing concrete core walls at both abutments; (2) a reservoir having minimal pondage; (3) a gated intake structure and powerhouse, located near the left dam abutment, containing two turbine-generator units rated at 125 kW and 300 kW; (4) a tailrace re-entering the river approximately 100 feet downstream of the dam; and (5) appurtenant facilities.

(iii) (1) Pierce Dam, 420 feet long and 28 feet high, located 900 feet downstream of Monadnock Dam and constructed of concrete with two spillway sections, 168 feet long and 122 feet long on a dogleg alignment, provided with 2-foot-high flashboards; (2) a reservoir having minimal pondage; (3) a gated intake structure and powerhouse, located at the right dam abutment, containing two turbine-generator units rated at 220 kW and 550 kW; (4) a tailrace partially encircling an island and re-entering the main channel of the river approximately 600 feet downstream of the main dam; and (5) appurtenant facilities.

(iv) (1) Paper Mill Dam, 280 feet long and 19 feet high, located 1,200 feet downstream of Pierce Dam and constructed of concrete with a 142-foot-long spillway section; (2) a canal headworks, just upstream of the right dam abutment, and a 300-foot-long canal with concrete walls leading to a forebay; (3) an intake structure and a steel penstock, 10 feet in diameter and approximately 200 feet long; (4) a powerhouse containing a turbine-generator unit rated at 750 kW; (5) a tailrace re-entering the river approximately 800 feet downstream of the dam; and (6) appurtenant facilities.

The project also consists of: (v) the 2.3-kV generator leads; (vi) the 2,190-foot-long, 2.3-kV overhead transmission line between the Monadnock Hydro Station and the 2.3-kV mill supply bus at the mill building; (vii) the 2.3-kV facilities connecting the Pierce Hydro Station generation to the 2,190-foot-long line; and (viii) appurtenant facilities to connect project generation to the 2.3-kV mill supply bus.

The combined total generating capacity of the project is 1,945 kW.

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

Exhibit A - Section entitled "Project Description and Proposed Mode of Operation," as shown on pages 11 through 17 of the application.

<u>Exhibit F</u>	<u>FERC No. 6597-</u>	<u>Title</u>
Sheet 1	4	Site Plan - Paper Mill Site
Sheet 2	5	Paper Mill Dam, Plan and Elevation
Sheet 3	6	Paper Mill Dam, Turbine Arrangement

<u>Exhibit F</u>	<u>FERC No. 6597-</u>	<u>Title</u>
Sheet 4	7	Site Plan - Pierce Station
Sheet 5	8	Powerhouse Details, Pierce Station
Sheet 6	9	Site Plan, Monadnock Powder Station
Sheet 7	10	Powerhouse Details, Monadnock Station
Sheet 8	11	Powerhouse Section, Monadnock Station
Sheet 9	12	Powder Mill Dam, Plan, Elevation
Sheet 10	12	Single Line Elec. Diagram
Sheet 11	14	Monadnock Paper Mills Hydroelectric Facility (Dam Sections)

(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) Exhibits A, P, and G, designated in ordering paragraph (B) above, are approved and made a part of the license.

(D) This license is also subject to the terms and conditions set forth in Form L-10 (revised October, 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting the Interests 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 6 months from the issuance date of this license file, for approval of the Director, Office of Hydropower Licensing, a report based on stability and dam break analyses, that identifies and quantifies the hazard to downstream life and property of failure of any susceptible project structure(s). The stability analyses shall determine what flood would cause instability of the structure(s). The dam break analyses

shall encompass floods which could cause dam failure and flood flows up to and including either the PMF or the flood flow where dam failure would cause no significant increase in hazard to downstream life and property. The report shall fully document all reconnaissance and other studies made in its preparation. In the event that failure of any project structure(s) under flood conditions presents a hazard to human life or would cause significant property damage then the Licensee shall simultaneously file, for approval of the Director, Office of Hydropower Licensing, a plan and schedule for modifying the project to ensure that the project can safely pass floods up to and including the PMF.

Article 25. The Licensee shall, in consultation with the New Hampshire Departments of Fish and Game, and Parks and Recreation, evaluate the need for and feasibility of developing canoe portage trails around the project dams and fishing access sites at the project developments within 6 months from the date of issuance of this license. If warranted, the Licensee shall construct the portages and fishing access sites and within 1 year of the date of issuance of the license, shall file with the Commission as-built drawings as necessary to show the locations and features of the canoe portage trails and fishing access sites.

Article 26. The Licensee shall discharge from the Monadnock Hydroelectric Project, a continuous minimum flow of 70 cubic feet per second (cfs), as measured immediately below the tailrace of the Pierce Mill Dam or the inflow to the project, whichever is less, for the protection of aquatic resources in the Contoocook River. Licensee shall also discharge from each of the other three project developments (Powder Mill, Monadnock, and Paper Mill) a continuous minimum flow of 13 cfs or inflow to the developments, whichever is less, for protection of the aquatic resources within the project area. The release from the Pierce Mill Development shall be from a notch in the spillway on the east side of the island. Minimum flows may be temporarily modified if required by operating emergencies beyond the control of the Licensee and for short periods upon mutual agreement between the Licensee and the New Hampshire Fish and Game Department.

Article 27. The Licensee shall, within 1 year from the date of issuance of the license, prepare and file with the Commission a feasibility analysis of installing additional generating capacity at the Powder Mill Pond Dam, taking into account, to the extent reasonable, all benefits including any contribution to the conservation of non-renewable energy resources. If the study shows additional capacity to be economically feasible, the Licensee shall simultaneously file a plan and schedule and an application to amend its license to install that capacity.

Article 28. The Licensee shall pay the United States the following annual charge, 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 2,600 horsepower.

Article 29. Pursuant to Section 10(d) of the Act, after 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 30. (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 5 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 Hydropower Licensing, 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 recreational 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.

(E) The Licensee's failure to file a petition appealing this order to the Commission shall constitute acceptance of this license. In acknowledgment of acceptance of this order and its terms and conditions, it shall be signed by the Licensee and returned to the Commission within 60 days from the date this order is issued.

for



Quentin A. Edson  
Director, Office of  
Hydropower Licensing

Project No. 6597-000

IN TESTIMONY of its acknowledgment of acceptance of all of the terms and conditions of this order, Monadnock Paper Mills, Inc. this \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, has caused its corporate 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 CONSTRUCTED 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 area and project works shall be 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.

Article 4. The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands of the United States, 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 such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration 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 submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. 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 pursuant to the then current regulations 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 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. 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.

## Appendix 2

DE 08-053 ORDER  
Public Service Company of New Hampshire Application for Class IV Renewable Energy  
Certificate Eligibility  
dtd September 23, 2008

THE STATE OF NEW HAMPSHIRE

CHAIRMAN  
Thomas B. Getz

COMMISSIONERS  
Graham J. Morrison  
Clifton C. Below

EXECUTIVE DIRECTOR  
AND SECRETARY  
Debra A. Howland



PUBLIC UTILITIES COMMISSION  
21 S. Fruit Street, Suite 10  
Concord, N.H. 03301-2429

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TDD Access: Relay NH  
1-800-735-2964

Website:  
[www.puc.nh.gov](http://www.puc.nh.gov)

September 23, 2008

William H. Smagula, P.E.  
Director-Generation  
Public Service Company of New Hampshire  
P.O. Box 330  
Manchester, NH 03105

Re: DE 08-053, Public Service Company of New Hampshire  
Application for Class IV Renewable Energy Certificate Eligibility

Dear Mr. Smagula:

On April 2, 2008, Public Service Company of New Hampshire (PSNH) submitted an application requesting certification for eight small hydroelectric facilities located in Bow (Garvins Falls), Bristol (Ayers Island), Franklin (Eastman Falls), Gorham (Gorham), Hillsborough (Jackman), Hooksett (Hooksett), Manchester (Amoskeag) and West Stewartstown (Canaan) ("small hydroelectric facilities") to produce Class IV renewable energy certificates (RECs) pursuant to RSA 362-F, New Hampshire's Renewable Portfolio Standard law.

Class IV eligibility requires that a facility: 1) began operation prior to January 1, 2006; 2) has a gross nameplate capacity of 5 megawatts (MW) or less; 3) has installed upstream and downstream diadromous fish passages required under the terms of its license (or license exemption) from the Federal Energy Regulatory Commission (FERC); and 4) when required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects

On June 27, 2008, and on September 4, 2008, Staff submitted recommendations that the Commission approve in part and deny in part PSNH's application for Class IV certification of the above referenced facilities. Specifically, Staff recommended the Commission deny certification for Amoskeag, Ayers Island, Eastman Falls and Garvins Falls as they exceed the 5 MW gross nameplate capacity limitation and recommended approval for the Canaan, Gorham, Hooksett and Jackman facilities noting that their application was completed on August 27, 2008 in accordance with N.H. Code Admin Rules 2500.

Between May and August of 2008, several motions from Granite State Hydropower Association (GSHA) and responses thereto from PSNH have been entered

September 23, 2008

Page two

in this docket regarding, among other things, the nameplate capacity size of certain facilities and the correct interpretation of the fish passage requirements set out in RSA 362-F:4,IV. In addition to these filings, the Commission received letters from Ashuelot River Hydro, Inc., the Department of Environmental Services and State Representative Suzanne Harvey expressing their agreement with GSHA's interpretation of RSA 362-F:4, IV. Such filings are not contemplated by the Commission's rules and do not form a basis for the Commission's treatment of PSNH's application.

PSNH's application for Class IV certification for the Amoskeag, Ayers Island, Eastman Falls and Garvins Falls facilities is denied inasmuch as they exceed the 5 megawatt gross nameplate capacity. PSNH has, however, provided all the necessary documentation to demonstrate that the Canaan, Gorham, Hooksett and Jackman facilities are eligible for certification as Class IV facilities. In making these decisions, the Commission adopts the reasoning and the recommendations set forth by Staff in its memos of June 27, 2008 and September 4, 2008.

The Canaan facility is a single-unit run-of-river hydroelectric generating station located on the Connecticut River in West Stewartstown, New Hampshire and at Canaan Station, 344 Powerhouse Rd., Canaan, Vermont. The facility entered commercial operation in 1927, has a gross nameplate capacity of 1.1 MW and holds a twenty-five year operating license issued by the FERC on August 24, 1984. Canaan is not required by FERC to employ diadromous fish passage. The applicant stated that the New Hampshire Water Supply and Pollution Control Commission and Vermont Department of Water Resources and Environmental Engineering issued water quality certificates on August 2, 1983 and May 10, 1984, respectively. The facility's NEPOOL generation information system facility code is MSS861.

The Gorham G-1, G-2, G-3, and G-4 hydroelectric generating facilities are located on the Androscoggin River at Gorham Station, 1 Station Rd., Gorham, New Hampshire and operate on a run-of-river basis. Each of Gorham G-1 and G-2, installed in 1917, is rated with a gross nameplate capacity of 0.4 MW, while the 1923 additions of G-3 and G-4 are each rated with a gross nameplate capacity of 0.675 MW, giving the entire facility a gross nameplate capacity of 2.15 MW. PSNH operates this facility under a thirty year license issued by the FERC on August 1, 1994. Gorham Station is not required by FERC to employ diadromous fish passage. The NHDES issued a Water Quality Certificate for Gorham Station on April 25, 1991. The facility's NEPOOL generation information system facility code is MSS427.

The Hooksett facility is a single-unit run-of-river hydroelectric generating station located on the Merrimack River at Hooksett Station, 73 Merrimack St., Hooksett, New Hampshire. The facility entered commercial operation in 1927, has a gross nameplate capacity of 1.6 MW and holds a forty year license issued by the FERC on May 18, 2007

September 23, 2008  
Page three

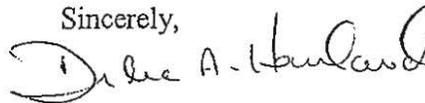
which replaces the original license issued on May 8, 1980 and which expired on December 31, 2005. The Hooksett facility has installed downstream fish passage, and its FERC license requires the development of a plan for upstream passage and to install means of passage within three years after 9,500 shad or 22,500 river herring pass Amoskeag Station. As these numbers of shad or river herring have yet to be observed, Hooksett Station is currently not required by FERC to employ upstream diadromous fish passage. Pursuant to the Clean Water Act Section 401, the NHDES issued Water Quality Certification 2003-006 for Hooksett Station in 2004. This was modified in 2005 and renumbered 2003-006.1 on May 10, 2005. The facility's NEPOOL generation information system facility code is MSS768.

The Jackman facility is a single-unit hydroelectric generating station located on the North Branch Contoocook River at Jackman Station, 8 Sawmill Rd., Hillsborough, NH and operates as a peaking facility. It consists of a concrete dam and earth dikes that create an impoundment with a surface area of 519 acres. The facility entered commercial operation in 1926 and has a gross nameplate capacity of 3.2 MW. It is not subject to FERC jurisdiction, so there are no FERC requirements regarding diadromous fish passage at the facility. The dam is registered with the NHDES Dam Bureau under dam registration number 116.04. Water quality monitoring pursuant to the Clean Water Act Section 401 certification is not required by the NHDES. The facility's NEPOOL generation information system facility code is MSS449.

The Commission hereby certifies that the Canaan, Gorham, Hooksett and Jackman facilities are Class IV renewable energy sources effective August 27, 2008 and are eligible to be issued New Hampshire Class IV renewable energy certificates.

Attached please find a copy of the notice of these certifications provided to the GIS administrator. The New Hampshire Renewable Portfolio Standard certification codes for the above referenced facilities are as follows: Canaan, NH-IV-08-007; Gorham, NH-IV-08-008; Hooksett, NH-IV-08-009; and Jackman NH-IV-08-010.

Sincerely,



Debra A. Howland  
Executive Director and Secretary

Encl.  
cc: Granite State Hydropower Association  
Ashuelot River Hydro, Inc.  
Department of Environmental Services  
Rep. Suzanne Harvey

THE STATE OF NEW HAMPSHIRE

CHAIRMAN  
Thomas B. Getz

COMMISSIONERS  
Graham J. Morrison  
Clifton C. Below

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TDD Access: Relay NH  
1-800-735-2964

Website:  
[www.puc.nh.gov](http://www.puc.nh.gov)

September 23, 2008

Bryan Gower  
GIS Administrator  
APX, Inc.  
5201 Great America Parkway, Suite 522  
Santa Clara, CA 95054

Re: DE 08-053, Public Service Company of New Hampshire  
Canaan, Gorham, Hooksett and Jackman Hydroelectric Facilities  
Certification as New Hampshire RPS Class IV Facilities pursuant to RSA 362-F  
New Hampshire Certification Codes NH-IV-08-007, NH-IV-08-008, NH-IV-08-009  
and NH-IV-08-010

Dear Mr. Gower:

Please be advised that, pursuant to NH RSA 362-F, the New Hampshire Public Utilities Commission has certified Public Service Company of New Hampshire's Canaan, Gorham, Hooksett and Jackman hydroelectric facilities as Class IV renewable energy sources effective August 27, 2008. Accordingly, these facilities are eligible to be issued New Hampshire Class IV renewable energy certificates.

The Canaan facility is a single-unit run-of-river hydroelectric generating station located on the Connecticut River in West Stewartstown, New Hampshire and at Canaan Station, 344 Powerhouse Rd., Canaan, Vermont. The facility entered commercial operation in 1927 and has a gross nameplate capacity of 1.1 MW. The facility's ISO-New England asset identification number is 861. The New Hampshire RPS certification code is NH-IV-08-007.

The Gorham G-1, G-2, G-3, and G-4 hydroelectric generating facilities are located on the Androscoggin River at Gorham Station, 1 Station Rd., Gorham, New Hampshire and operate on a run-of-river basis. Each of Gorham G-1 and G-2, installed in 1917, is rated with a gross nameplate capacity of 0.4 MW, while the 1923 additions of G-3 and G-4 are each rated with a gross nameplate capacity of 0.675 MW, giving the entire facility a gross nameplate capacity of 2.15 MW. The facility's ISO-New England asset identification number is 427. The New Hampshire RPS certification code is NH-IV-08-008.

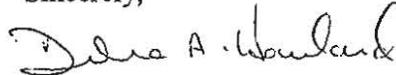
September 23, 2008

Page two

The Hooksett facility is a single-unit run-of-river hydroelectric generating station located on the Merrimack River at Hooksett Station, 73 Merrimack St., Hooksett, New Hampshire. The facility entered commercial operation in 1927 and has a gross nameplate capacity of 1.6 MW. The facility's ISO-New England asset identification number is 768. The New Hampshire RPS certification code is NH-IV-08-009.

The Jackman facility is a single-unit hydroelectric generating station located on the North Branch Contoocook River at Jackman Station, 8 Sawmill Rd., Hillsborough, NH. The facility entered commercial operation in 1926 and has a gross nameplate capacity of 3.2 MW. The facility's ISO-New England asset identification number is 449. The New Hampshire RPS certification code is NH-IV-08-010.

Sincerely,



Debra A. Howland  
Executive Director

cc: William H. Smagula  
Director, PSNH Generation

**Appendix 3**

DE 10-151 ORDER  
The City of Holyoke Gas & Electric Department Certification Application for Class IV  
Certification Pursuant to RSA 362-F  
dtd August 12, 2010

THE STATE OF NEW HAMPSHIRE

CHAIRMAN  
Thomas B. Getz

COMMISSIONERS  
Clifton C. Below  
Amy L. Ignatius

EXECUTIVE DIRECTOR  
AND SECRETARY  
Debra A. Howland



PUBLIC UTILITIES COMMISSION  
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August 12, 2010

Jeanette A. Sypek  
Senior Energy Resources Coordinator  
City of Holyoke Gas & Electric Department  
99 Suffolk Street  
Holyoke, MA 01040

Re: DE 10-151, the City of Holyoke Gas & Electric Department  
Certification Application for Class IV Certification Pursuant to RSA 362-F

Dear Ms. Sypek:

On June 2, 2010, you submitted an application on behalf of the City of Holyoke Gas and Electric Department (HG&E), requesting certification of fourteen small hydroelectric facilities located in Holyoke, Massachusetts (Holyoke facilities) as eligible to produce Class IV renewable energy certificates pursuant to RSA 362-F, New Hampshire's Renewable Portfolio Standard (RPS) law.

On June 30, 2010, you responded to Staff's information requests clarifying that each of the fourteen hydroelectric power stations are physically and electrically separate facilities and that the only installed upstream and downstream fish passage is at the Hadley Falls Station where the opening of the canal system meets the Connecticut River.

New Hampshire's RPS law requires that an existing small hydroelectric facility has "actually installed both upstream and downstream diadromous fish passages and such installations have been approved by the Federal Energy Regulatory Commission." See RSA 362-F:4, IV. Inasmuch as the fourteen hydroelectric facilities listed in your application do not each have both upstream and downstream diadromous fish passages, the Holyoke facilities do not meet the requirements set forth in RSA 362-F:4, IV. Accordingly, the Commission has denied your request to certify the Holyoke facilities as Class IV renewable energy sources.

Sincerely,

A handwritten signature in dark ink, appearing to read "Debra A. Howland".

Debra A. Howland  
Executive Director