



**Public Service  
of New Hampshire**

PSNH Energy Park  
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Public Service Company of New Hampshire  
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D28975

April 7, 2010  
File No. 04.0024931.03

The Northeast Utilities System

John M. MacDonald  
Vice President - Generation

Mr. Brian Pitt, Acting Chief  
NPDES Municipal Permits Branch  
Office of Ecosystem Protection  
EPA-New England, Region 1  
5 Post Office Square, Suite 100  
Boston, Massachusetts 02109-3912

Re: Notice of Intent  
General Permit for Hydroelectric Generating Facilities – NHG360000  
Hooksett Hydro Station  
Public Service Company of New Hampshire

Dear Mr. Pitt,

In accordance with the extension letter issued by the Environmental Protection Agency (EPA) dated March 5, 2010, Public Service Company of New Hampshire (PSNH) is submitting the Notice of Intent (NOI) to request coverage for the Hooksett Hydro Station in Hooksett under the General Permit for Hydroelectric Generating Facilities (Permit) in the State of New Hampshire (NHG360000):

PSNH requests that the individual permit application submitted for this facility in 1983 be withdrawn.

As discussed during our February 9, 2010 meeting with George Papadopoulos and Robin Johnson of your office, PSNH has several questions pertaining to site eligibility for the five remaining PSNH hydroelectric facilities. PSNH has forwarded those eligibility questions to Mr. George Papadopoulos in a letter dated April 2, 2010. Following resolution of the potential eligibility issues, PSNH will work with our consultant to complete the required Notice of Intent documentation or Individual Permit applications prior to July 8, 2010.

If you have any questions, please contact Sheila Burke, PSNH Generation at 603-634-2512.

Very truly yours,

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

John M. MacDonald  
Vice President – Generation

cc: George Papadopoulos/EPA  
Robin Johnson/EPA  
Daniel Dudley/NHDES

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7. Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached?  X

8. Provide the number of turbines and the combined turbine discharge (installed capacity) at maximum and minimum output, in cubic feet per second (cfs). Number of turbines  1  Combined turbine discharge (installed capacity): maximum output, cfs  1,750  and minimum output, cfs  550

9. Is the hydroelectric generating facility operated as a pump storage project? **No**

**B. Discharge Information** (attach additional sheets as needed).

1. Name of receiving water into which discharge will occur:  Merrimack River   
Freshwater:  X  Marine Water: \_\_\_\_\_

2. Attach a line drawing or flow schematic showing water flow through the facility including sources of intake water, operations contributing flow, treatment units, outfalls, and receiving waters(s). Line drawing or flow schematic attached?  X

3. List each outfall under the following categories and number sequentially: equipment-related cooling water; equipment and floor drain water; maintenance-related water; facility maintenance-related water during flood/high water events, and equipment-related backwash strainer water (see Parts I.A.1, 2, 3, and 4; or Parts I.B.1, 2, 3, and 4). Attach additional sheets to identify outfalls as needed.

Equipment-related cooling water

Equipment and floor drain water

See attached table.

Maintenance-related water

Facility maintenance-related water during flood/high water events

Equipment-related backwash strainer water

4. List each outfall discharging any combination of the following to identify the combined discharges: equipment-related cooling water, equipment and floor drain water, maintenance-related water, equipment-related backwash strainer water, and facility maintenance-related water during flood/high water events (see Parts I.A.5 and B.5) and continue the sequential numbering. Attach additional sheets to identify outfalls as needed.

5. Provide for each outfall the following:

- a. Latitude and longitude to the nearest second (see EPA's siting tool at: [http://www.epa.gov/tri/report/siting\\_tool/](http://www.epa.gov/tri/report/siting_tool/)) and the name(s) of the receiving water(s) into which the discharge will occur.
- b. The operations contributing flow and the treatment received by the discharge. Indicate the average flow from each operation.
- c. Indicate if the discharge can be sampled at least once per year or can be sampled using the representative outfall sampling provisions (see Parts I.A.6 or B.6 and III.E).
- d. Note if the outfall discharges intermittently or seasonally.

### C. Chemical Additives

Are any non-toxic neutralization chemicals used in the discharge(s)? Yes  No  If so, include the chemical name and manufacturer; maximum and average daily quantity used on a monthly basis as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC<sub>50</sub> in percent for typically acceptable aquatic organism).

### D. Endangered Species Act Eligibility Information

A facility, with a previous ESA Section 7 consultation with the National Marine Fisheries Service (NMFS), seeking coverage under the Massachusetts general permit and discharging to the Connecticut River or Merrimack River should provide one of the following, if available.

1. A formal certification indicating consultation with the National Marine Fisheries Service (NMFS) resulted in either a no jeopardy opinion or a written concurrence on a finding that the discharges are not likely to adversely affect the shortnose sturgeon or critical habitat. Information should also be provided indicating the hydroelectric facility's previous ESA Section 7 consultation with NMFS covered the discharges to be authorized under this general permit and demonstrating no significant changes in the discharges have occurred since the previous consultation.
2. Another operator's certificate of the ESA eligibility for those discharges to be authorized under this general permit.

### E. Supplemental Information

Please provide any supplemental information, including antidegradation review information applicable to new or increased discharges. Attach any certification(s) required by the general permit.

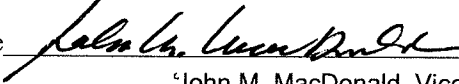
## F. Signature Requirements

The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that no chemical additives are used in the discharges to be authorized under this general permit except for those used for pH adjustment and (2) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature



Date

4/7/10

Printed Name and Title

John M. MacDonald, Vice President, Generation

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

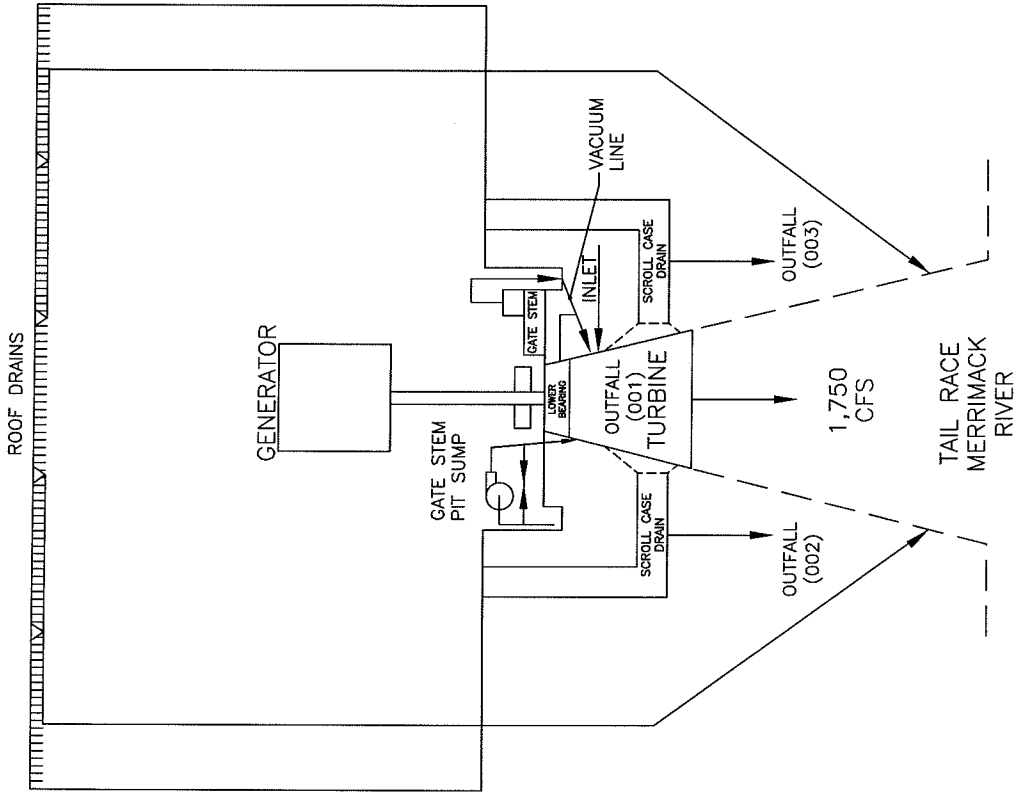
Public Service Company of New Hampshire  
Hooksett Hydro Station

Equipment and Floor Drain Water

Outfall	Description	Location	Contributing Operations	Average Flow	Total Average Flow	Occasional or Consistent Discharge	Discharging Water	Sample Location or Representative Outfall	Possible Annual Sampling
001	Wheel Pit Drain (vacuum line or pump)	N 43° 06' 3.8" W 71° 27' 53.8"	Gate stem leakage Lower bearing leakage	10-20 GPY 10-20 GPY	20-40 GPY	Consistent	Merrimack River	Grab sample from wheel pit (gate stem leakage only)	Yes

Maintenance - Related Water

002	Front Scroll Case Drain	N 43° 06' 3.8" W 71° 27' 53.9"	Scroll case drain	0-10 GPM	0-10 GPM	Intermittent	Merrimack River	Representative Outfall 003	Yes (Rep. Outfall)
003	Back Scroll Case Drain	N 43° 06' 3.7" W 71° 27' 53.7"	Scroll case drain	0-50 GPM	0-50 GPM	Intermittent	Merrimack River	Grab sample from scroll case drain prior to discharge	Yes



NOTE: ALL FIGURES ARE BASED ON MAXIMUM CAPACITY.

SCHEMATIC OF WATER FLOW PUBLIC SERVICE OF NEW HAMPSHIRE 73 MERRIMACK STREET, HOOKSETT, NEW HAMPSHIRE		INTERIOR DRAINAGE PLAN	
PREPARED BY: GZA Geoscientists, Inc. 780 NORTH COMMERCIAL STREET MANCHESTER, NEW HAMPSHIRE		PROJECT NO. 04-0024931.03 DATE APRIL 2010	
CHECKED BY: [blank] SCALE: NOT TO SCALE	DRAWN BY: [blank]	PROJECT NO. 04-0024931.03	REVISION NO. 2
CHECKED BY: [blank]	DRAWN BY: [blank]	PROJECT NO. 04-0024931.03	REVISION NO. 2

UNDER CONTRACT AGREEMENT, GZA Geoscientists, Inc. (GZA) has provided the information shown on this drawing for the use of the client. GZA does not warrant, represent or guarantee the accuracy, completeness or reliability of the information shown on this drawing. The client is responsible for the accuracy, completeness and reliability of the information shown on this drawing. GZA shall not be held liable for any errors or omissions on this drawing. GZA shall not be held liable for any damages, including consequential damages, arising from the use of this drawing. GZA shall not be held liable for any damages, including consequential damages, arising from the use of this drawing. GZA shall not be held liable for any damages, including consequential damages, arising from the use of this drawing.





SCALE IN MILES

**NPDES HYDROELECTRIC GENERATING  
FACILITIES GENERAL PERMIT  
HOOKSETT HYDROSTATION**  
PUBLIC SERVICE OF NEW HAMPSHIRE  
73 MERRIMACK STREET, HOOKSETT NEW HAMPSHIRE 03106

**PREPARED BY:** GZA GeoEnvironmental, Inc.  
Engineers and Scientists  
300 HARVEY ROAD  
NORWICH, NEW HAMPSHIRE 03103  
(603) 525-3828

**PREPARED FOR:** PUBLIC SERVICE OF NEW HAMPSHIRE

LOCUS PLAN

PROJ. MGR:	KOB	DATE:	APRIL 2010
DESIGNED BY:	CSJ	PROJECT NO.:	04.0024931.03
REVIEWED BY:	RAG	REVISION NO.:	
DRAWN BY:	MA	FIGURE	1
CHECKED BY:	KOB	SHEET NO.	
SCALE:	AS SHOWN		