



**Public Service
of New Hampshire**

PSNH Energy Park
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D28974

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PSNH requests that the individual permit application submitted for this facility in 1983 be withdrawn.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

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 4 Combined turbine discharge (installed capacity): maximum output, cfs 6,380 and minimum output, cfs 2,483 (4 units) / 700 (one unit)

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/) 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 LC₅₀ 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.

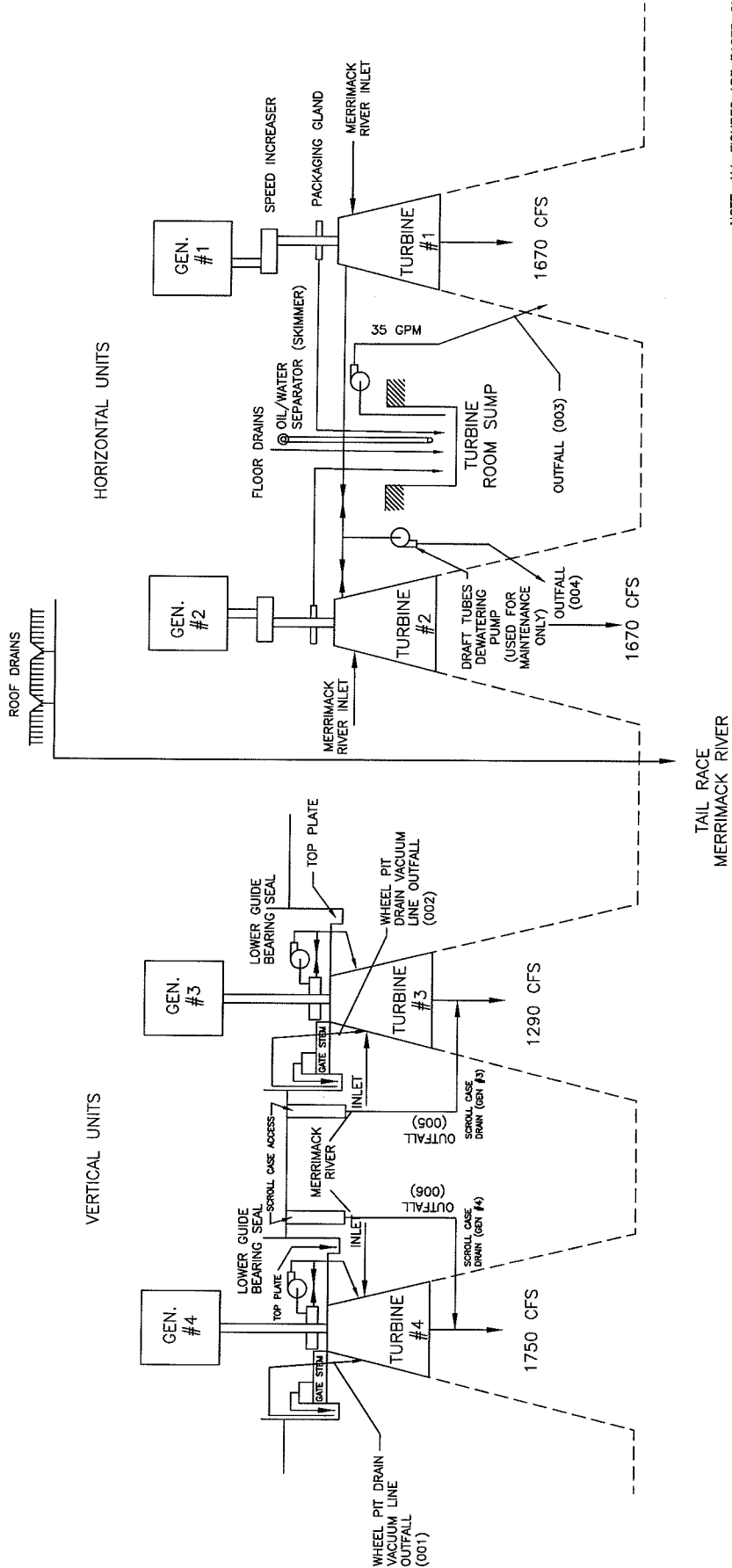
Public Service Company of New Hampshire
Garvins Falls Hydro Station

Equipment and Floor Drains

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 Generator 4	N 43° 09' 53.2" W 71° 30' 26.8"	Gate stem leakage	10-20 GPY	20-60 GPY	Consistent	Merrimack River	Lift top plate and grab sample from wheel pit	Yes
			Guide bearing seal (in failure)	10-20 GPY					
			Top plate leakage	0-20 GPY					
002	Wheel Pit Drain Generator 3	N 43° 09' 52.7" W 71° 30' 27.8"	Gate stem leakage	10-20 GPY	20-60 GPY	Consistent	Merrimack River	Representative Outfall 001	Yes
			Guide bearing seal (in failure)	10-20 GPY					
			Top plate leakage	0-20 GPY					
003	Turbine Room Sump (Generator 1 and Generator 2)	N 43° 09' 51.8" W 71° 30' 28.3"	Bearing leakage	3 GPM	3.5 - 6 GPM	Consistent	Merrimack River	Install sampling port to collect water from sump	Yes
			Floor drains	0.5 - 3 GPM					

Maintenance - Related Water

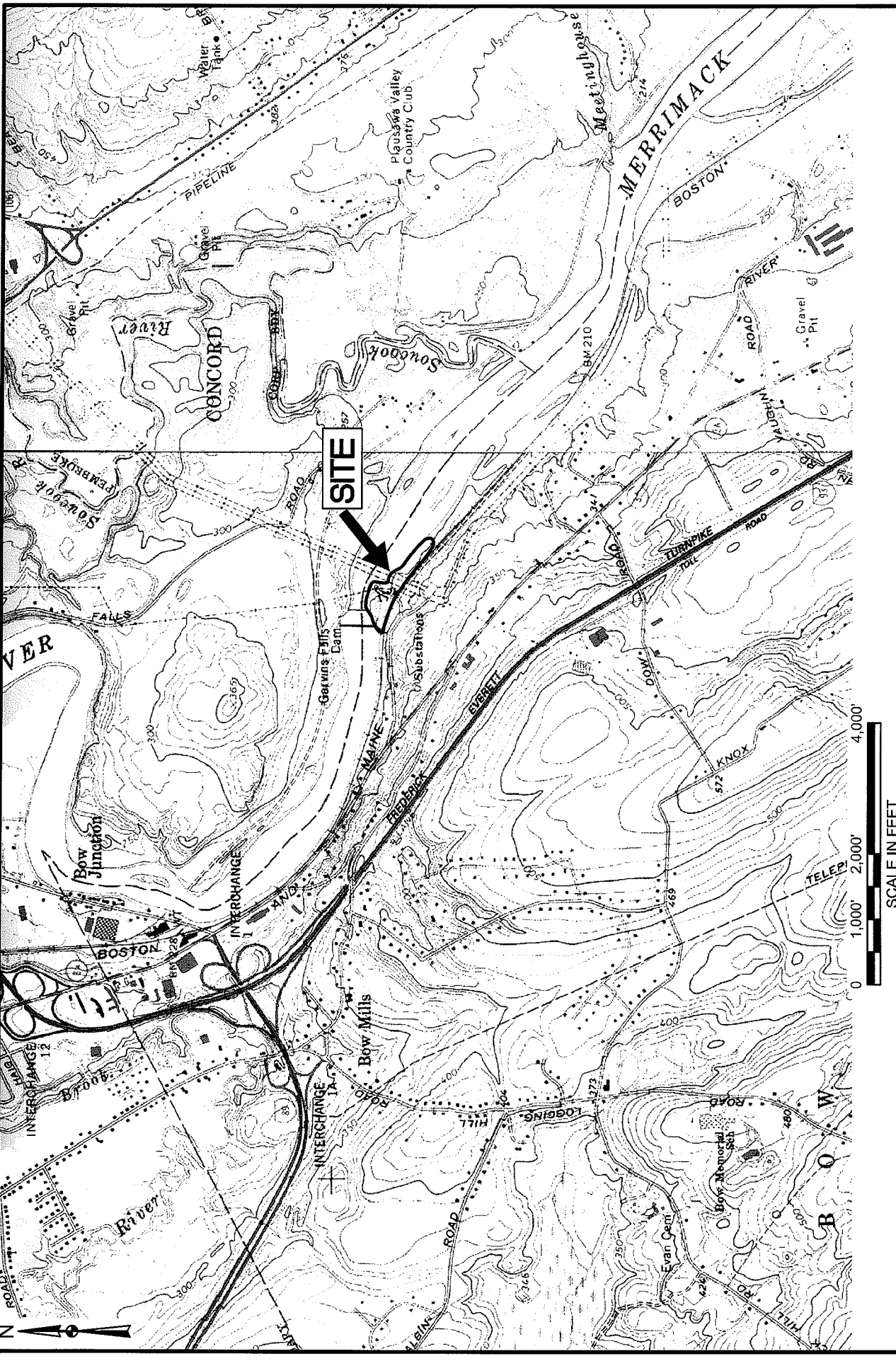
004	Dewatering Draft Tubes (Generator 1 and Generator 2)	N 43° 09' 51.1" W 71° 30' 28.5"	Draft tube dewatering pump	1200 GPM (pump rate)	0-1200 GPM	Intermittent	Merrimack River	Install sampling port to collect water from draft tube	Yes
005	Scroll Case Drain for Gen. # 3	N 43° 09' 53.0" W 71° 30' 26.8"	Scroll case drain	5-20 GPM	5-20 GPM	Intermittent	Merrimack River	Grab sample from scroll case prior to discharge	Yes
006	Scroll Case Drain for Gen. # 4	N 43° 09' 53.0" W 71° 30' 26.8"	Scroll case drain	5-20 GPM	5-20 GPM	Intermittent	Merrimack River	Representative Outfall 005	Yes




NOTE: ALL FIGURES ARE BASED ON MAXIMUM CAPACITY.

SCHEMATIC OF WATER FLOW PUBLIC SERVICE OF NEW HAMPSHIRE 5 GARVINS FALLS ROAD, BOW NEW HAMPSHIRE	
INTERIOR DRAINAGE PLAN	
PREPARED BY: GZA Geosystems, Inc. 780 NORTH COMMERCIAL STREET MANCHESTER, NEW HAMPSHIRE 03102-3300	PROJECT NO. 04.0024631.03
CHECKED BY: DATE APRIL 2010	REVISION NO. 2

THIS PLAN SPECIFICALLY SET FORTH BY WRITTEN AGREEMENT BETWEEN THE PUBLIC SERVICE OF NEW HAMPSHIRE AND THE STATE OF NEW HAMPSHIRE. THE INFORMATION SHOWN ON THIS PLAN IS THE PROPERTY OF THE PUBLIC SERVICE OF NEW HAMPSHIRE. IT IS TO BE USED ONLY FOR THE PURPOSES SPECIFICALLY SET FORTH IN THE AGREEMENT. THE PUBLIC SERVICE OF NEW HAMPSHIRE SHALL NOT BE RESPONSIBLE FOR ANY OTHER USES OF THIS PLAN. THE PUBLIC SERVICE OF NEW HAMPSHIRE SHALL NOT BE RESPONSIBLE FOR ANY OTHER USES OF THIS PLAN. THE PUBLIC SERVICE OF NEW HAMPSHIRE SHALL NOT BE RESPONSIBLE FOR ANY OTHER USES OF THIS PLAN.



<p>PREPARED BY:  GZA GeoEnvironmental, Inc. Engineers and Scientists 300 MARKET ROAD NEW HAMPSHIRE 03103 (603) 625-3500</p>	<p>PROJ. MGR: ROB DESIGNED BY: DSJ REVIEWED BY: RAG DRAWN BY: MA CHECKED BY: ROB SCALE: AS SHOWN</p>		<p>DATE: APRIL 2010</p>	<p>FIGURE: 1</p>
	<p>PREPARED FOR: PUBLIC SERVICE OF NEW HAMPSHIRE</p>		<p>PROJECT NO.: 04.0024931.03</p>	<p>REVISION NO.:</p>
<p>NPDES HYDROELECTRIC GENERATING FACILITIES GENERAL PERMIT GARVINS FALLS STATION</p>			<p>LOCUS PLAN</p>	
<p>5 GARVINS FALLS ROAD, BOW, NEW HAMPSHIRE 03304</p>			<p>SHEET NO.:</p>	