



**US Northeast Hydro Region**  
2 Killeen Street  
N. Walpole, NH 03609

tel 603.445.6803  
fax 603.445.6809  
[www.transcanada.com](http://www.transcanada.com)

February 26, 2010

US Environmental Protection Agency  
Hydroelectric GP Processing  
Municipal Assistance Unit (OEP06-3)  
5 Post Office Square - Suite 100  
Boston, MA 02109-3912

**RE: Notices of Intent for Coverage under HYDROGP #NHG360000**

Dear Sir or Madame,

Enclosed please find Notices of Intent (NOIs) and attachments for three (3) TransCanada Hydro Northeast Inc. hydroelectric generating facilities located in New Hampshire. TransCanada is seeking National Pollutant Discharge Elimination System (NPDES) permit coverage under the Hydroelectric Generating Facilities General Permit (HYDROGP) #NHG360000. These facilities do not currently operate under individual permit; however, administratively complete applications for individual coverage were submitted to EPA in 1993. Those individual permit applications were updated and re-submitted several times since their original submittal.

If you have any questions or need additional information please contact me at (603) 445-6803 or at [davidpaul\\_murray@transcanada.com](mailto:davidpaul_murray@transcanada.com).

Sincerely,

David P. Murray  
Environmental Specialist

Enclosures: Three (3) Notices of Intent for facilities to be covered under NHG360000.

cc: New Hampshire Department of Environmental Services Water Division, Wastewater Engineering Bureau



7. Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? Fig 1

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 11,750 and minimum output, cfs 818

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: Connecticut 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? Fig 2

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

001 - Main compressor

002 - After cooler

003 - Unit #1 thrust bearing 007 - Unit #3 thrust bearing

004 - Unit #1 guide bearing 008 - Unit #3 guide bearing

005 - Unit #2 thrust bearing 009 - Unit #4 thrust bearing

006 - Unit #2 guide bearing 010 - Unit #4 guide bearing

Equipment and floor drain water

011 - Oil/water separator

Maintenance-related water

none

Facility maintenance-related water during flood/high water events

none

Equipment-related backwash strainer water

none

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.

012 - Small Sump - back up only  
013 - Main Sump - back up only  
014 - Pylon A

5. Provide for each outfall the following: *See Attachment 1*

- 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 \_\_\_\_\_ <sup>X</sup> 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.

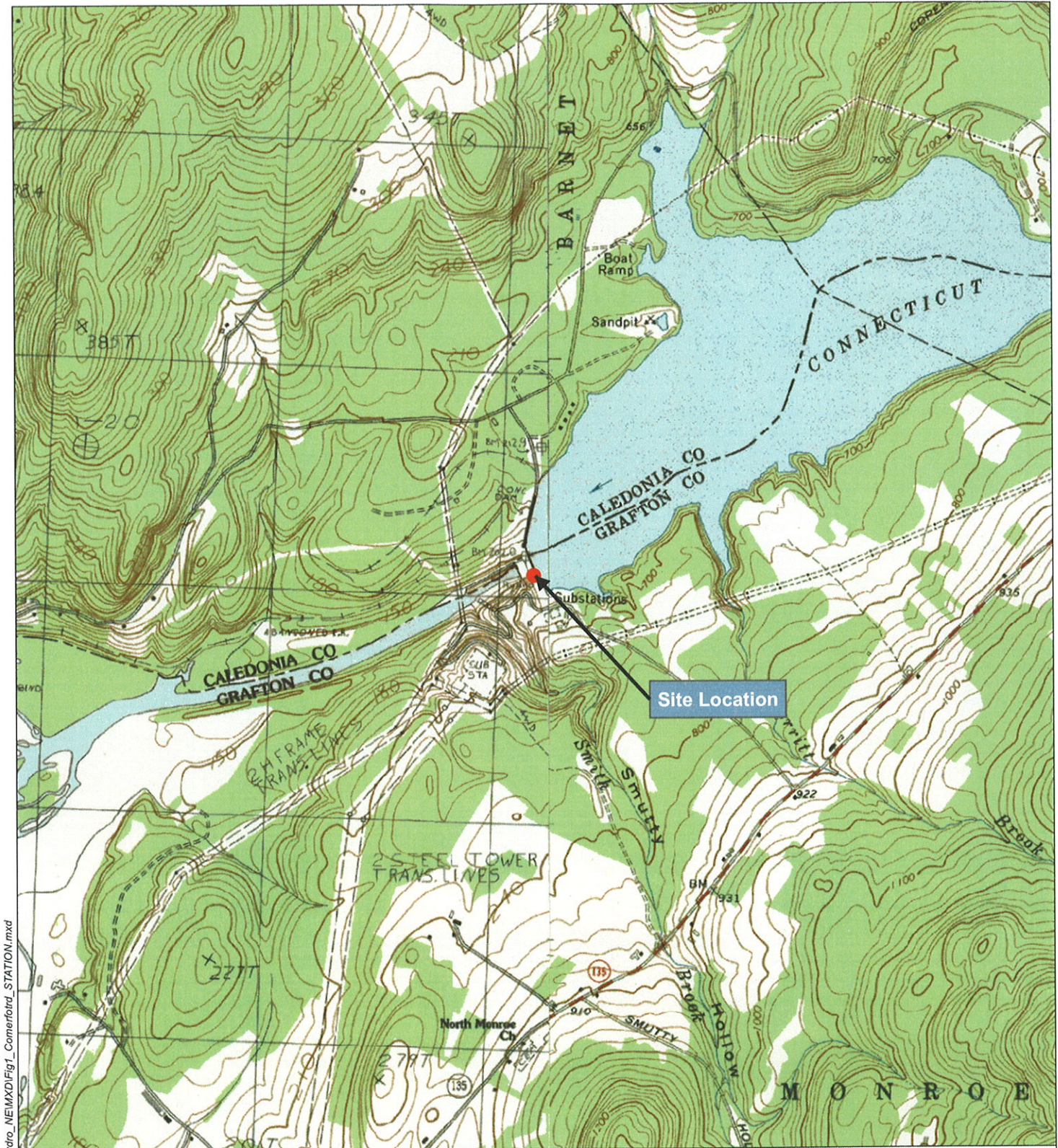
Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant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

Signature  Date Feb 26, 2010  
Printed Name and Title William C. Taylor - Senior Vice President Eastern US Power

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.





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Wannalancit Mills  
650 Suffolk Street  
Lowell, MA 01854  
978-970-5600

**SITE LOCATION MAP**

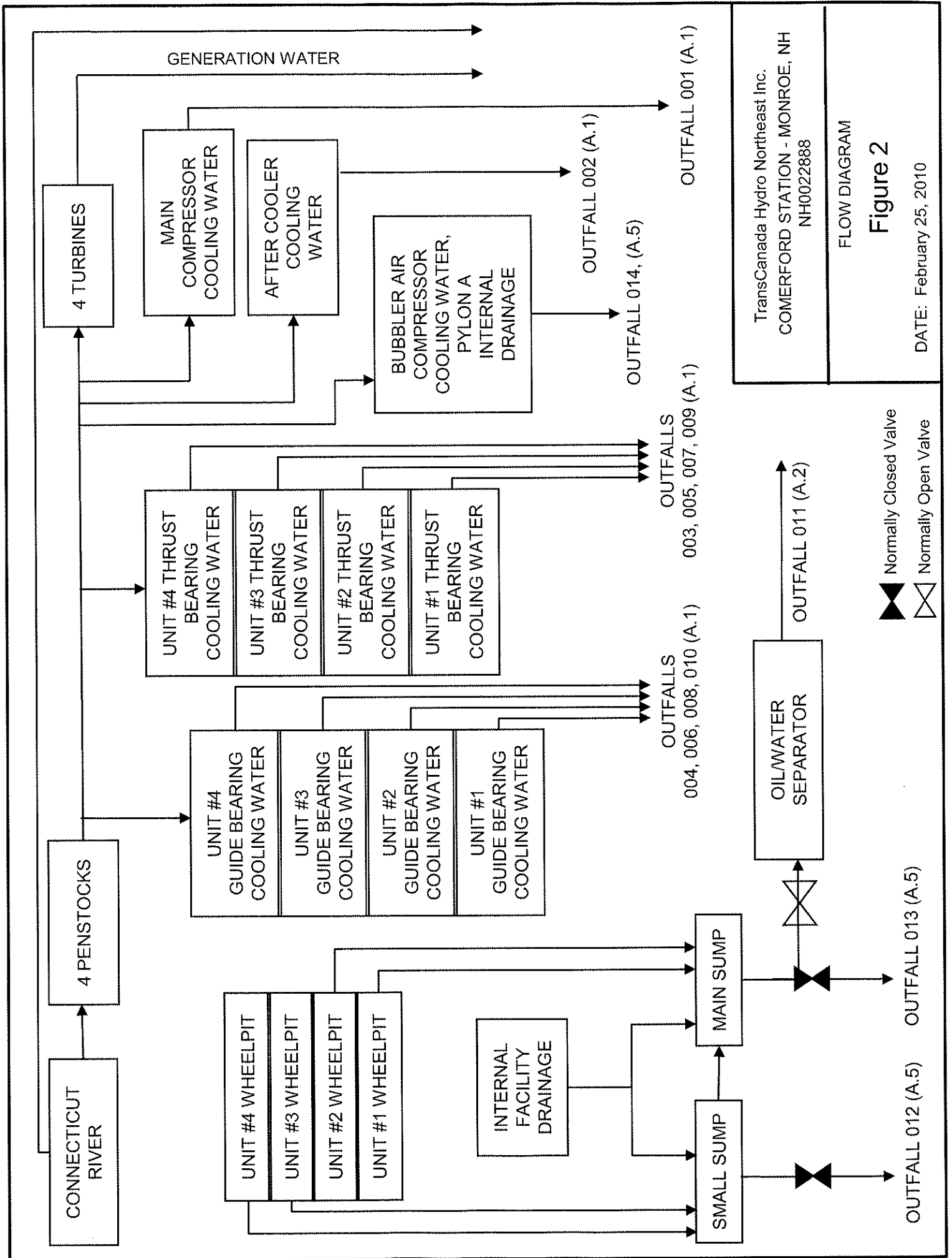
**TRANSCANADA HYDRO NORTHEAST, INC.  
COMERFORD STATION  
MONROE NH**

FIGURE 1

FEBRUARY 2010

Base map: USGS Topographic Quadrangles Lower Waterford and Barnett







TransCanada Hydro Northeast Inc.  
 COMERFORD STATION - MONROE, NH  
 NH0022888

FLOW DIAGRAM

Figure 2

DATE: February 25, 2010

 Normally Closed Valve  
 Normally Open Valve

TRANSCANADA HYDRO NORTHEAST INC. – COMERFORD STATION – NH0022888

General Permit # NHG360000 Notice of Intent  
Attachment 1

Outfall #	Latitude / Longitude	Discharge Type	Operations Contributing to Discharge	Average Daily Flow (GPD)	Flow Type	Treatment	Sample at least once per year?	Representative sampling location?
001	44° 19' 29.31" North, 72° 00'01.13" West	A.1 – Equipment related cooling water	Main Compressor cooling water	1,900	Continuous	None	Yes	No- Representative only of 001
002	44° 19' 29.31" North, 72° 00'01.13" West	A.1 – Equipment related cooling water	After Cooler cooling water	4,400	Continuous	None	Yes	No- Representative only of 002
003	44° 19' 29.31" North, 72° 00'01.13" West	A.1 – Equipment related cooling water	Unit #1 Thrust Bearing cooling water	144,000	On/off with unit generation – slightly before and after unit	None	Yes	Yes – Representative of 003, 005, 007, 009
004	44° 19' 29.31" North, 72° 00'01.13" West	A.1 – Equipment related cooling water	Unit #1 Guide Bearing cooling water	72,000	On/off with unit generation – slightly before and after unit	None	Yes	Yes – Representative of 004, 006, 008, 010
005	44° 19' 29.31" North, 72° 00'01.13" West	A.1 – Equipment related cooling water	Unit #2 Thrust Bearing cooling water	144,000	On/off with unit generation – slightly before and after unit	None	No*	Yes – Outfall 003 is the representative sampling location
006	44° 19' 29.31" North, 72° 00'01.13" West	A.1 – Equipment related cooling water	Unit #2 Guide Bearing cooling water	72,000	On/off with unit generation – slightly before and after unit	None	No*	Yes – Outfall 004 is the representative sampling location
007	44° 19' 29.31" North, 72° 00'01.13" West	A.1 – Equipment related cooling water	Unit #3 Thrust Bearing cooling water	144,000	On/off with unit generation – slightly before and after unit	None	No*	Yes – Outfall 003 is the representative sampling location
008	44° 19' 29.31" North, 72° 00'01.13" West	A.1 – Equipment related cooling water	#3 Unit Guide Bearing cooling water	72,000	On/off with unit generation – slightly before and after unit	None	No*	Yes – Outfall 004 is the representative sampling location
009	44° 19' 29.31" North, 72° 00'01.13" West	A.1 – Equipment related cooling water	Unit #4 Thrust Bearing cooling water	144,000	On/off with unit generation – slightly before and after unit	None	No*	Yes – Outfall 003 is the representative sampling location

\* Outfall can be sampled at least once per year but Outfall 003 and Outfall 004 are the representative outfalls which will be sampled at least once per year.



General Permit # NHG360000 Notice of Intent  
Attachment 1

Outfall #	Latitude / Longitude	Discharge Type	Operations Contributing to Discharge	Average Daily Flow (GPD)	Flow Type	Treatment	Sample at least once per year?	Representative sampling location?
010	44° 19' 29.31" North, 72° 00' 01.13" West	A.1 – Equipment related cooling water	Unit #4 Guide Bearing cooling water	72,000	On/off with unit generation – slightly before and after unit	None	No*	Yes – Outfall 004 is the representative sampling location
011	44° 19' 30.44" North, 72° 00' 04.24" West	A.2 – Equipment and floor drain water	Oil/Water Separator (wheelpits, internal facility drainage, station sumps)	160,000	Intermittent on a daily basis	Oil flotation	Yes	No- Representative only of 011
012	44° 19' 29.31" North, 72° 00' 01.13" West	A.5 – combined discharge - equipment and floor drain water; maintenance related water; and facility maintenance water during flood/high water events.	Small Sump Used when OWS is out of service and for flood/high water.	n/a Backup only. Up to 216,000	Intermittent, back up only – normally flows to station sump and OWS	None – manual operation only	Yes	No- Representative only of 012
013	44° 19' 29.31" North, 72° 00' 01.13" West	A.5 – combined discharge - equipment and floor drain water; maintenance related water; and facility maintenance water during flood/high water events.	Main Sump Used when OWS is out of service and for flood/high water.	388,800	Intermittent, back up only – normally flows to OWS	None – manual operation only	Yes	No- Representative only of 013
014	44° 19' 32.98" North, 72° 00' 03.83" West	A.5 – combined discharge – equip related cooling water; and equip and floor drain water	Combined discharge – Pylon A – Bubblers air compressor and internal drainage	Total = 43,200 with bubbler. Internal drainage up to 34,560 without bubbler. Bubbler = 8,640.	Continuous in winter with bubbler on, intermittent limited flow when bubbler is turned off.	None	Yes	No- Representative only of 014

\* Outfall can be sampled at least once per year but Outfall 003 and Outfall 004 are the representative outfalls which will be sampled at least once per year.