

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA"),

**Public Service Company of New Hampshire
J. Brodie Smith Hydroelectric Generating Station**

is authorized to discharge from a facility located at

**99 Glen Avenue
Berlin, New Hampshire, 03570**

to the receiving water named Androscoggin River, a Class B water, in accordance with effluent limitations, monitoring requirements, and other conditions set forth herein.

This permit shall become effective on the first day of the calendar month following sixty (60) days after the date of signature.

This permit supersedes the permit issued on September 22, 1978.

This permit and the authorization to discharge expire at midnight, five (5) years from the last day of the month preceding the effective date.

This permit consists of 10 pages in Part I including effluent limitations, monitoring requirements, and state permit conditions, Part II - Standard Conditions, and Part III - Best Management Practices (BMP) Plan.

Signed this 20th day of May, 2011.

/S/SIGNATURE ON FILE

Stephen S. Perkins, Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

A.1. Effluent Limitations and Monitoring Requirements for Floor Drain Water

During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge floor drain water from Outfall 001 to the Androscoggin River. This outfall shall be limited and monitored by the permittee as specified below. If there is an oil sheen present in this water, the permittee shall either pass this water through the station sump prior to discharge or collect it for off-site disposal. Monitoring for this outfall is to be conducted and reported in accordance with Part I.A.5 and Part I.D.

| <u>Effluent Characteristic</u> | <u>Units</u> | <u>Discharge Limitation</u> | <u>Monitoring Requirement</u> | |
|--------------------------------|----------------|-----------------------------|-------------------------------|--------------------|
| | | | <u>Measurement Frequency</u> | <u>Sample Type</u> |
| | | <u>Average Monthly</u> | | |
| Flow ¹ | Gallons/day | Report | 1/Quarter ² | Estimate |
| pH Range ^{3,4} | Standard Units | 6.5 to 8.0 | 1/Quarter | Grab |
| Oil and Grease ⁵ | mg/l | 15 | 1/Quarter | Grab |

Explanation to Superscripts to Part I.A.1:

- (1) The No Data Indicator Code (NODI) C applies when there is no discharge from the outfall and is entered on the quarterly Discharge Monitoring Report (DMR). A written explanation for the NODI is required with the DMR report. Additional NODI codes applicable to other conditions are found in the annual NPDES Permit Program Instructions for the DMRs forms. These instructions can be found at: <http://www.epa.gov/ne/enforcementandassistance/dmr.html>.
- (2) Quarter is defined as the calendar quarters of January to March, April to June, July to September, and October to December for all outfalls in this permit.
- (3) State certification requirement; see Part I.A.15.a.
- (4) If necessary, when the effluent pH is outside of the limited range, results of the ambient upstream river water pH sampling that are obtained to determine compliance with this limit shall be submitted as an attachment with the DMR.
- (5) Oil and Grease shall be tested using EPA test method 1664 Revision A as approved in 40 CFR 136. The minimum level (ML) of detection for Oil and Grease for test method 1664 is 5.0 mg/l. For this permit, the ML for Oil and Grease is defined as 5 mg/l and sample results of less than 5 mg/l shall be reported as zero on the discharge monitoring report.

A. 2. Effluent Limitations and Monitoring Requirements for Miscellaneous Equipment Water and Maintenance-Related Water During Flood/High Water Events ¹

During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge equipment and floor drain water from Outfall 002 to the Androscoggin River from the following operations: bearing water seals, wheel pit sumps, scroll case drains, draft tube access pit, and station sump, and facility maintenance related water during flood/high water events from flood water pumps, high water sump pumps, and miscellaneous flood/high water collection devices. This outfall shall be limited and monitored by the permittee as specified below. Monitoring for this outfall is to be conducted and reported in accordance with Part I.A.5 and Part I.D.

| <u>Effluent Characteristic</u> | <u>Units</u> | <u>Discharge Limitation</u> | <u>Monitoring Requirement</u> | |
|--------------------------------|----------------|-----------------------------|-------------------------------|--------------------|
| | | | <u>Measurement Frequency</u> | <u>Sample Type</u> |
| | | <u>Average Monthly</u> | | |
| Flow ² | Gallons/day | Report | 1/Quarter | Estimate |
| pH Range ^{3,4} | Standard Units | 6.5 to 8.0 | 1/Quarter | Grab |
| Oil and Grease ⁵ | mg/l | 15 | 1/Quarter | Grab |

Explanation to Superscripts to Part I.A.2:

- (1) For the facility maintenance-related water during flood/high water events, the date and approximate duration of each flood/high water discharge event shall be reported as an attachment to the DMR. Flood/high water discharges shall comply with the requirements in Part III.
- (2) The No Data Indicator Code (NODI) C applies when there is no discharge from the outfall and is entered on the quarterly Discharge Monitoring Report (DMR). A written explanation for the NODI is required with the DMR report. Additional NODI codes applicable to other conditions are found in the annual NPDES Permit Program Instructions for the DMRs forms. These instructions can be found at: <http://www.epa.gov/ne/enforcementandassistance/dmr.html>.
- (3) State certification requirement; see Part I.A.15.a.
- (4) If necessary, when the effluent pH is outside of the limited range, results of the ambient upstream river water pH sampling that are obtained to determine compliance with this limit shall be submitted as an attachment with the DMR.
- (5) Oil and Grease shall be tested using EPA test method 1664 Revision A as approved in 40 CFR 136. The minimum level (ML) of detection for Oil and Grease for test method 1664 is 5.0 mg/l. For this permit, the ML for Oil and Grease is defined as 5 mg/l and sample results of less than 5 mg/l shall be reported as zero on the discharge monitoring report.

A. 3. Effluent Limitations and Monitoring Requirements for Equipment-Related Cooling Water

During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge equipment-related cooling water (non-contact cooling water) from Outfall 003 to the Androscoggin River. This outfall shall be limited and monitored by the permittee as specified below. Monitoring for this outfall is to be conducted and reported in accordance with Part I.A.5 and Part I.D.

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

Explanation to Superscripts to Part I.A.3:

- (1) The No Data Indicator Code (NODI) C applies when there is no discharge from the outfall and is entered on the quarterly Discharge Monitoring Report (DMR). A written explanation for the NODI is required with the DMR report. Additional NODI codes applicable to other conditions are found in the annual NPDES Permit Program Instructions for the DMRs forms. These instructions can be found at: <http://www.epa.gov/ne/enforcementandassistance/dmr.html>.
- (2) State certification requirement; see Part I.A.15.a.
- (3) If necessary, when the effluent pH is outside of the limited range, results of the ambient upstream river water pH sampling that are obtained to determine compliance with this limit shall be submitted as an attachment with the DMR.

A.4. Equipment-Related Backwash Strainer Water

During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge equipment-related backwash strainer water from the operation of the backwash strainer on the cooling water intake line through Outfall 004. Monitoring for this discharge is not required, but the permittee shall comply with the requirements of Part I.A.6 and Part III which pertain to operation of the backwash strainer.

A. Effluent Limitations and Monitoring Requirements (continued)

5. Samples taken in compliance with the monitoring requirements specified above shall be taken at a location that provides a representative analysis of the discharge. Where feasible, samples for an outfall shall be taken concurrently. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. Effluent sampling begins with the first complete quarter following the active date of permit coverage.
6. Solid materials shall be removed from any trash racks or intake screens and disposed of in accordance with the procedures developed in Part III.D.4 (Trash Racks or Intake Screens) of this permit.
7. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.
8. The discharge shall not jeopardize any of the uses assigned to the receiving water and shall not violate applicable water quality standards for the receiving water Class as defined by the State of New Hampshire.
9. There shall be no discharge of floating solids, visible oil sheen or foam other than in trace amounts.
10. Discharges shall not cause the turbidity of the receiving water to exceed naturally occurring conditions by more than 10 Nephelometric Turbidity Units (NTU).
11. The discharge shall not cause visible discoloration which would impair the uses designated by the classification of the receiving water.
12. The discharge shall not contain materials in concentrations or in combinations which are hazardous or toxic to aquatic life or which would impair the uses designated by the classification of the receiving waters.
13. This permit does not allow for the addition of any chemical for any purpose to the discharges except for non-toxic neutralization chemicals, with the exception of the chemical with the trade name TannerGas®. See special conditions regarding the use of this chemical in Part I.C. In addition, additives used to control biological growth in cooling water are prohibited due to their inherent toxicity to aquatic life. Notification of all substitutions of non-toxic neutralization chemicals or of TannerGas® must be sent to EPA and the State in writing. These written substitution notifications must contain the following information:

- (1) Name and manufacturer of chemical,

- (2) 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
 - (3) The vendor's reported aquatic toxicity (NOAEL and/or LC50 in % for typically acceptable aquatic organism).
14. All existing manufacturing, commercial, mining and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR § 122.42):
- a. That any activity has occurred or will occur which would result in the discharge, on a routine basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - (1) One hundred micrograms per liter (100 µg/l);
 - (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - (1) Five hundred micrograms per liter (500 µg/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g)(7);
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).
 - c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.
15. The New Hampshire State Permit Conditions require that all New Hampshire permittees shall comply with the following condition which is included as a State Certification requirement.
- a. The pH of the discharge shall be in the range of 6.5 to 8.0 standards units (S.U.) unless the upstream ambient pH in the receiving water is outside of this range and is not altered by the facility's discharge or activities. If the permittee's discharge pH is

lower than 6.5 S.U., the permittee may demonstrate compliance by showing that the discharge pH is either higher than, or no more than 0.5 S.U. lower than, the ambient upstream river water pH. If the permittee's discharge pH is higher than 8.0 S.U., the permittee may demonstrate compliance by showing that the discharge pH is either lower than, or no more than 0.5 S.U. higher than, the ambient upstream river water pH. For this demonstration, the upstream river water sample must be collected on the same day as the discharge pH is measured. The location where the upstream ambient pH sample is collected must be representative of the upstream conditions unaffected by the facility's discharge(s) or activities.

16. Toxics Control

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any State or Federal Water Quality Standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.
- c. EPA or NHDES may use the results of chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to 304(a)(a) of the Clean Water Act (CWA), State Water Quality Criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 C.F.R. Part 122.

B. Unauthorized Discharges

1. The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfalls listed in Parts I A.1. to I.A.4 of this permit. Discharges of wastewater from any other point sources not authorized by this permit shall be reported in accordance with Part II (Standard Conditions) Section D.1.e.(1) of this permit (24 hour reporting).
2. New and increased discharges from hydroelectric generating facilities that may adversely affect a listed or proposed to be listed endangered or threatened species or its critical habitat or that may adversely affect any federal managed species for which Essential Fish Habitat has been designated are not authorized under this permit.

C. Special Conditions Regarding the Use of TannerGas®

This facility is authorized to use a product with the trade name TannerGas®, to prevent freezing and blockage of the air blower and compressed air lines used to supply the aeration systems which prevent icing at the dam spillway and in the surge tanks during the winter months.

The permittee may use this product as necessary only for this purpose and in the smallest amounts necessary to prevent freezing which could affect the operations at the facility. At no time shall it be used in excess of the manufacturer's recommendations. The facility shall record the following information and submit it as an attachment to the DMR for each quarter that

TannerGas® is used:

- the monthly amount of this product that is used at the facility
- the average river flow for each month that the product is used, from the closest gaging station on the Androscoggin River.
- the start and end dates for the use of this product for every winter season

D. MONITORING AND REPORTING

1. **For a period of one year from the effective date of the permit**, the permittee may either submit monitoring data and other reports to EPA in hard copy form or report electronically using NetDMR, a web-based tool that allows permittees to electronically submit discharge monitoring reports (DMRs) and other required reports via a secure internet connection. Specific requirements regarding submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

- a. Submittal of Reports Using NetDMR

NetDMR is accessed from: <http://www.epa.gov/netdmr>. **Within one year of the effective date of this permit**, the permittee shall begin submitting DMRs and reports required under this permit electronically to EPA using NetDMR, unless the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports (“opt-out request”).

DMRs shall be submitted electronically to EPA no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA or NHDES.

- b. Submittal of NetDMR Opt-Out Requests

Opt-out requests must be submitted in writing to EPA for written approval at least sixty (60) days prior to the date a facility would be required under this permit to begin using NetDMR. This demonstration shall be valid for twelve (12) months from the date of EPA approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to EPA unless the permittee submits a renewed opt-out request and such request is approved by EPA. All opt-out requests should be sent to the following addresses:

Attn: NetDMR Coordinator
U.S. Environmental Protection Agency, Water Technical Unit
5 Post Office Square, Suite 100 (OES04-1)
Boston, MA 02109-3912

And

Attn: Tracy L. Wood, P.E.
New Hampshire Department of Environmental Services
Water Division
Wastewater Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

c. Submittal of Reports in Hard Copy Form

Monitoring results shall be summarized for each calendar quarter and reported on separate hard copy Discharge Monitoring Report Form(s) (DMRs) postmarked no later than the 15th day of the month following the completed reporting period. All reports required under this permit shall be submitted as an attachment to the DMRs. Signed and dated originals of the DMRs, and all other reports or notifications required herein or in Part II shall be submitted to the Director at the following address:

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

Duplicate signed copies of all DMRs, reports, certifications for the BMP Plan, and other notifications required herein or in Part II shall be submitted to the State at the following addresses:

New Hampshire Department of Environmental Services
Water Division
Wastewater Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, New Hampshire 03302-0095

Any verbal reports, if required in **Parts I** and/or **II** of this permit, shall be made to both EPA and to NHDES.

E. STATE PERMIT CONDITIONS

1. The permittee shall comply with the following conditions which are included as State Certification requirements.
 - a. The permittee shall not at any time, either alone or in conjunction with any person or persons, cause directly or indirectly the discharge of waste into the said receiving water unless it has been treated in such a manner as will not lower the legislated water quality classification or interfere with the uses assigned to said water by the New Hampshire Legislature (RSA 485-A:12).

- b. This NPDES Discharge Permit is issued by the EPA under Federal and State law. Upon final issuance by the EPA, the NHDES-WD may adopt this permit, including all terms and conditions, as a State permit pursuant to RSA 485-A:13. If NHDES-WD adopts this permit, each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of the Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912**

FACT SHEET

**DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES
PURSUANT TO THE CLEAN WATER ACT (CWA)**

NPDES PERMIT NUMBER: NH0001481

PUBLIC NOTICE START AND END DATES: March 31, 2011 – April 29, 2011

NAME AND MAILING ADDRESS OF APPLICANT:

**Public Service Company of New Hampshire
PSNH Energy Park
780 North Commercial Street
Manchester, NH 03101**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**J. Brodie Smith Hydroelectric Generating Station
99 Glen Avenue
Berlin, New Hampshire, 03570**

RECEIVING WATER: Androscoggin River
USGS Hydrologic Code #01040001 – Upper Androscoggin Hydrologic Basin

RECEIVING WATER CLASSIFICATION: Class B

SIC CODE: 4911 – Electric Power Generation

Table of Contents

I. Proposed Action, Type of Facility and Discharge Location 3

II. Description of Treatment System and Discharges 4

III. Receiving Water Description 6

IV. Limitations and Conditions 7

V. Permit Basis: Statutory and Regulatory Authority 7

General Requirements 7

Technology-Based Requirements 8

Water Quality-Based Requirements 8

Antibacksliding/Antidegradation 10

VI. Explanation of Permit’s Effluent Limitations 11

VII. Essential Fish Habitat Determination (EFH) 13

VIII. Endangered Species Act (ESA) 14

IX. State Certification Requirements 14

X. Public Comment Period, Public Hearing, and Procedures for Final Decision .. 15

XI. EPA Contact 15

Figure 1 - Facility Location

Figure 2 - Water Flow Schematic

I. Proposed Action, Type of Facility and Discharge Location

The Public Service Company of New Hampshire (PSNH) is a wholly owned subsidiary of Northeast Utilities which is based in Connecticut. PSNH provides electricity to most residents of the State of New Hampshire and operates the Smith Station hydroelectric facility in Berlin, NH. This facility consists of a dam, a canal, a 1650 foot long penstock, and a hydroelectric power generation building, which houses one turbine-driven electric generating unit capable of generating 15 megawatts of electrical power. Smith Station is classified as a run-of-the-river project, whereby water that is passed over the dam is passed through the facility and used to spin a turbine, thereby generating electricity. This permit authorizes the discharge of equipment-related non-contact cooling water, equipment and floor drain water, maintenance-related water during flood/high water events, and equipment-related backwash strainer water to the Androscoggin River. This permit does not regulate the river flow through the turbines or over the dam.

The Facility's current permit was issued in 1978 and expired on September 1, 1983. The permit has been administratively continued due to the permittee's submittal of a completed re-application. As a result, PSNH remains subject to its existing (1978) permit until EPA issues a new one. See **Figure 1** for the site location and **Figure 2** for a map showing the water flow schematic of the facility and location of the outfalls which will be authorized by this draft permit.

Hydroelectric generating facilities are classified by the Standard Industrial Classification (SIC) code number 4911 for the electric services industry which is comprised of establishments engaged in electric power generation, transmission, or distribution. A hydroelectric generating facility includes the generating station (station), dam(s), reservoir(s), canal system or tunnel system at certain facilities, and associated equipment and structures used in the generation of hydroelectric power. This facility is characterized as a run-of-river project. Run-of-river projects are usually located on a river where there is a natural drop in the river channel, such as found at a falls or gorge, and an acceptable supply of water. These facilities rely on a large volume of water to generate electricity. A dam constructed at this location creates an impoundment or reservoir that can supply the water into a penstock directly to the turbines located in the powerhouse. The flow of water continuously turns the waterwheel turbines which spin the generators producing electricity. The dam and waste gate are located to the northeast of this hydro station with the waste gate located directly adjacent to the inlet to the penstock. River water from the dam either flows through the waste gate or the penstock and tailrace.

This facility was not eligible for coverage under the Hydroelectric Generating Facility general NPDES permit (HYDRO GP) which was issued by EPA Region 1 in December of 2009. The reason for this facility's exclusion from the HYDRO GP is that it did not meet the condition of using only non-toxic neutralization chemicals. This facility uses a chemical with a trade name TannerGas® in its compressed air blower system which aerates the water within the river impoundment in the vicinity of the dam and waste gate. as well as in its surge tank aeration system. TannerGas® used in the winter months

prevents freezing and blockage of the air blower and compressed air lines used to supply the aeration systems. This in turn prevents icing at the dam spillway and in the surge tanks during the winter months. The main ingredient of TannerGas® is methanol, which is flammable and mildly toxic according to its Material Safety Data Sheet (MSDS).

The facility estimates that it uses up to 2 gallons per day. Since this product is miscible in water, the permittee believes that a small amount of methanol is absorbed in the water that flows through the waste gate and penstock and is discharged to the receiving water. TannerGas has a relatively low toxicity potential and the introduction of up to 2 gallons per day of this product, which mixes with the thousands of gallons per day that flow through the penstock and through the facility, would render it non-detectable. EPA and NHDES believe that TannerGas use will not cause or contribute to water quality standards violations in the receiving water. There are specific conditions for the use of this chemical in Part I.C of the draft permit, which authorize the use of TannerGas, but only as necessary and in the smallest amounts needed to prevent freezing. The draft permit requires the facility to record and report the following for each quarter that TannerGas is used:

- the monthly amount of this product that is used at the facility
- the average river flow for each month that the product is used, from the closest gaging station on the Androscoggin River.
- the start and end dates for the use of this product for every winter season

II. Description of Treatment System and Discharges

This permit was issued in 1978 and did not include any effluent limits, but required that the permittee monitor the flow of river water used for power generation and that the pH of the discharge be similar to that of the receiving water. The 1978 permit also required the permittee to comply with the prohibition on the discharge of floating solids, foam, oil sheen, and discoloration.

Outfall 001 – Floor Drain Water

This is an intermittent discharge which is rarely used and which is estimated at up to 50 gallons per year. The floor drains at the facility are normally sealed with drain plugs that can be removed as needed to drain accumulated water that may result from an emergency such as a pipe rupture or mechanical failure. This permit requires that the permittee inspect this floor drain water for the presence of an oil sheen prior to discharge. If a sheen is noted, this water shall not be discharged but rather be directed to the station sump which includes an oil skimmer and oil sensor or be collected for off-site disposal. If there is no presence of an oil sheen, this floor drain water may be discharged to Outfall 001 and shall be monitored as required in the permit once per quarter.

Outfall 002 – Combined Equipment/Floor Drain Water and Maintenance-Related Water during Flood/High Water Events

The equipment and facility maintenance-related water operations include river water pumped from the facility during periods of equipment, station, and facility maintenance. During equipment maintenance operations, discharges may occur from the dewatering of equipment containing river water such as the turbine, penstock, and dewatering sumps. During flood and high water events, station maintenance operations may result in discharges of flood/high waters from flood water pumps and high water sump pumps. During these events, there may be discharges from miscellaneous flood/high water collection devices such as floor drains, siphon hoses, and access manway areas. These maintenance-related discharges are intermittent and can occur seasonally.

The equipment water operation primarily represents the internal station drainage from trench drains, floor drains, and station sumps. Internal station drainage is collected in the station sump and includes waters from bearing water seals, the wheel pit sump, scroll case drains, and draft tube access pit. The station sump is outfitted with an oil skimmer with a maximum oil removal rate of 12 gallons of oil per hour that operates continuously as well as an oil sensor. The station sump discharges depending on its level relative to the level of the receiving water. The facility believes the sump discharges on a few occasions per day and at an estimated rate of 3-4 gallons per minute (gpm). Sampling for pH and oil & grease is conducted in the sump prior to discharge as this has been determined to be representative of the discharge.

Outfall 003 – Equipment-Related Cooling Water

The facility discharges equipment-related non-contact cooling water (NCCW) associated with electrical power generation. NCCW is defined as “water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product or finished product” in the regulations at 40 CFR 401.11(n). The NCCW is used to cool the turbine’s thrust bearings and the surface air cooler. This NCCW is sampled for temperature and pH at a valve on the discharge pipe, which directs the water through the tailrace at the bottom of the turbine at a rate of about 750 gpm.

Outfall 004 – Equipment-Related Backwash Strainer Water

This facility includes the operation of a strainer operation on the cooling water intake line. This operation produces backwash water discharges during cleaning of river debris and silt from the strainer’s screens. In the Hydro GP, this type of discharge is authorized but does not require monitoring. In order to be consistent with the Hydro GP, this permit likewise does not require monitoring of this backwash water. However, the permittee shall comply with the requirements of Part I.A.6 and Part I.C. of the permit which pertain to the operation of the backwash strainer.

III. Receiving Water Description

The Androscoggin River originates at the outlet of Umbagog Lake in Errol, New Hampshire, and empties into the Atlantic Ocean at Merrymeeting Bay in Brunswick, Maine. The River is one of the major New England river basins, extending from the Canadian border to the Atlantic Ocean and covering a 3,450 square mile section of eastern New Hampshire and southwestern Maine. The river flow is regulated from a series of dams in the upper watershed that store a significant amount of water. As a result, a minimum flow of water can be maintained throughout the river system.

The flow of the Androscoggin River is extensively regulated by numerous dams, both on the river itself and on its tributaries. The existing dams essentially control all but peak flows in the basin. Over 90 percent of the present storage capacity is in the headwaters of the basin above the outlet of Umbagog Lake at Errol, New Hampshire. The only other major storage impoundment on the river itself is the Gulf Island Pond (GIP) formed by Gulf Island Dam. The dam, which was built in 1928, is located near Lewiston, Maine. The GIP is used primarily for hydropower generation by Florida Power and Light (FPL).

In 1983, the critical low flow event was based on a flow of 1,550 cubic feet per second (cfs) at Berlin, New Hampshire. This flow rate was based upon a minimum flow maintenance agreement amongst the James River Paper Company, Rumford Falls Power Company, International Paper Company and the Union Water Company, which formed the Androscoggin Reservoir Company. That agreement called for a minimum flow of 1,550 cfs to be maintained in the Androscoggin River at Berlin, New Hampshire. Stored water was to be released so that one third (1/3) originates from Aziscohos Lake storage and the remaining two thirds (2/3) from the waters impounded by the Errol Middle, Upper and Rangeley Dams.

The NHDES recently re-estimated local 7Q10 for the Androscoggin River from Berlin to Gorham using the 1963 to 2006 post log drive period of record at the USGS gage in Gorham. The 7Q10 at the Gorham USGS gage was estimated to be 1,349 cfs and this river flow serves as the basis for calculating any water quality-based criteria limits for the Androscoggin River in New Hampshire.

Under the New Hampshire water use classification system, the New Hampshire Department of Environmental Services (NHDES) has designated this segment of the Androscoggin River (# NHRIV400010606-08) as a Class B water. Class B waters shall be of the second highest quality and shall have no objectionable physical characteristics, and shall contain a dissolved oxygen content of at least 75 percent saturation (see RSA 485-A:8). The following designated uses are assigned to Class B waters: the protection and propagation of aquatic life and wildlife, for swimming and other recreational purposes; and, after treatment, for water supplies.

Section 305(b) of the Clean Water Act requires submittal of a report (commonly called the "305(b) Report") from the States that describes the quality of its surface waters and an analysis of the extent to which all such waters provide for the protection and

propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water.

New Hampshire Statutes Chapter 485-A:4.XIV requires the NHDES to biennially provide a report to the governor and other entities of its findings regarding analysis of water quality monitoring data and identification of any long term trends which may affect the purity of the surface and groundwaters of the state. The primary purpose of this report is to document the water quality status of New Hampshire's surface waters and groundwater in accordance with Section 305(b) and 303(d) of the Federal Water Pollution Control Act as last reauthorized by the Water Quality Act of 1987 [PL92-500, commonly called the Clean Water Act (CWA)], and New Hampshire Statutes Chapter 485-A:4.XIV. Section 303(d) requires submittal of a list of waters (i.e., the 303(d) List) that are:

- impaired or threatened by a pollutant or pollutant(s),
- not expected to meet water quality standards within a reasonable time even after application of best available technology standards for point sources or best management practices for nonpoint sources and,
- require development and implementation of a comprehensive water quality study (i.e., called a Total Maximum Daily Load or TMDL study) that is designed to meet water quality standards.

This segment of the Androscoggin River is on the NHDES' 2008 303(d) list of impaired waters. This segment is impaired for fish consumption due to dioxin from industrial point source discharges and for primary contact recreation, due to E. coli bacteria from illicit sanitary connections to storm sewers. EPA does not believe that this facility's discharges contribute to these impairments.

IV. Limitations and Conditions

The effluent limitations and all other requirements described in Part VI of this Fact Sheet may be found in the draft permit.

V. Permit Basis: Statutory and Regulatory Authority

General Requirements

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit unless such a discharge is otherwise authorized by the CWA. The NPDES permit is the mechanism used to implement technology and water quality-based effluent limitations and other requirements including monitoring and reporting. This draft NPDES permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and any applicable State regulations. The regulations

governing the EPA NPDES permit program are generally found at 40 CFR Parts 122, 124, 125, and 136.

When developing permit limits, EPA must consider the most recent technology-based treatment and water quality-based requirements. Subpart A of 40 CFR Part 125 establishes criteria and standards for the imposition of technology-based treatment requirements in permits under Section 301(b) of the CWA, including the application of EPA-promulgated effluent limitations and case-by-case determinations of effluent limitations under Section 402(a)(1) of the CWA. EPA is required to consider technology and water quality-based requirements as well as all limitations and requirements in the existing permit when developing permit limits.

Technology-Based Requirements

Technology-based treatment requirements represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the CWA (see 40 CFR §125 Subpart A) to meet best practicable control technology currently available (BPT) for conventional pollutants and some metals, best conventional control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants.

In general, the statutory deadline for non-POTW, technology-based effluent limitations must be complied with as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989 (see 40 CFR §125.3(a)(2)). Compliance schedules and deadlines not in accordance with the statutory provisions of the CWA can not be authorized by a NPDES permit.

In the absence of published technology-based effluent guidelines, the permit writer is authorized under Section 402(a)(1)(B) of the CWA to establish effluent limitations on a case-by-case basis using best professional judgment (BPJ).

The effluent monitoring requirements have been established to yield data representative of the discharges under the authority of Section 308(a) of the Clean Water Act, according to regulations set forth at 40 CFR § 122.41(j), 122.44(i) and 122.48. The monitoring program in the permit specifies routine sampling and analysis which will provide continuous information on the reliability and effectiveness of the installed pollution abatement equipment. The approved analytical procedures are to be found in 40 CFR 136 unless other procedures are explicitly required in the permit.

Water Quality-Based Requirements

Water quality-based limitations are required in NPDES permits when EPA and the State determine that effluent limits more stringent than technology-based limits are necessary to maintain or achieve state or federal water quality standards (WQS). See Section 301(b)(1)(C) of the CWA.

Receiving water requirements are established according to numerical and narrative standards adopted under state law for each water quality classification. When using chemical-specific numeric criteria to develop permit limits, both the acute and chronic aquatic-life criteria, expressed in terms of maximum allowable in-stream pollutant concentration, are used. Acute aquatic-life criteria are considered applicable to daily time periods (maximum daily limit) and chronic aquatic-life criteria are considered applicable to monthly time periods (average monthly limit). Chemical-specific limits are allowed under 40 CFR § 122.44(d)(1) and are implemented under 40 CFR § 122.45(d). The Region has established, pursuant to 40 CFR 122.45(d)(2), a maximum daily limit and average monthly discharge limits for specific chemical pollutants.

A facility's design flow is used when deriving constituent limits for daily and monthly time periods as well as weekly periods where appropriate. Also, the dilution provided by the receiving water is factored into this process where appropriate. Narrative criteria from the state's WQS are often used to limit toxicity in discharges where (a) a specific pollutant can be identified as causing or contributing to the toxicity but the state has no numeric standard; or (b) toxicity cannot be traced to a specific pollutant.

EPA regulations require NPDES permits to contain effluent limits more stringent than technology-based limits where more stringent limits are necessary to maintain or achieve state or federal WQS. The permit must address any pollutant or pollutant parameter (conventional, non-conventional, toxic and whole effluent toxicity) that is or may be discharged at a level that causes or has "reasonable potential" to cause or contribute to an excursion above any water quality criterion. See 40 CFR Section 122.44(d)(1). An excursion occurs if the projected or actual in-stream concentration exceeds the applicable criterion. In determining reasonable potential, EPA considers (a) existing controls on point and non-point sources of pollution; (b) pollutant concentration and variability in the effluent and receiving water as determined from the permit application, Monthly Discharge Monitoring Reports (DMRs), and State and Federal Water Quality Reports; (c) sensitivity of the species to toxicity testing; (d) known water quality impacts of processes on wastewater; and, where appropriate, (e) dilution of the effluent in the receiving water.

Water quality standards consist of three parts: (a) beneficial designated uses for a water body or a segment of a water body; (b) numeric and/or narrative water quality criteria sufficient to protect the assigned designated use(s); and (c) antidegradation requirements to ensure that once a use is attained it will not be degraded.

The applicable New Hampshire water quality standards can be found in the New Hampshire Code of Administrative Rules, Surface Water Quality Regulations, Chapter Env-Wq 1700 et seq. See generally, Title 50, Water Management and Protection, Chapter 485A, Water Pollution and Waste Disposal Section 485-A. These regulations were readopted effective May 21, 2008 and include the three water quality based elements discussed above.

The State Surface Water Quality Regulations limit or prohibit discharges of pollutants to surface waters and thereby assure that the surface water quality standards of the receiving water are protected, maintained, and/or attained. These standards also include

requirements for the regulation and control of toxic constituents. The conditions of the permit reflect the goal of the CWA and EPA to achieve and then to maintain water quality standards. EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 C.F.R. §122.44(d).

The State of New Hampshire has narrative criteria in its water quality standards (see New Hampshire Env-Ws 1703.21) that prohibit toxic discharges in toxic amounts. This draft permit does not allow for the addition of materials or chemicals in amounts which would produce a toxic effect to any aquatic life.

Antibacksliding

A permit may not be renewed, reissued or modified with less stringent limitations or conditions than those contained in the previous permit unless in compliance with the anti-backsliding requirements of the CWA [see Sections 402(o) and 303(d)(4) of the CWA and 40 CFR §122.44(1)(1 and 2)]. EPA's antibacksliding provisions prohibit the relaxation of permit limits, standards, and conditions except under certain circumstances. Effluent limits based on BPJ, water quality, and state certification requirements must also meet the antibacksliding provisions found at Section 402(o) and 303(d)(4) of the CWA. Since this reissued permit is more stringent than the existing permit, this reissuance will be consistent with the antibacksliding regulations.

Antidegradation

Federal regulations found at 40 CFR Section 131.12 require states to develop and adopt a statewide antidegradation policy which maintains and protects existing instream water uses and the level of water quality necessary to protect the existing uses, and maintains the quality of waters which exceed levels necessary to support propagation of fish, shellfish, and wildlife and to support recreation in and on the water. The environmental regulations pertaining to the State Antidegradation Policies are found at: New Hampshire 50 RSA 485-A:8 and Surface Water Quality Regulations Chapter 1700, Part Env-Ws 1708. All existing instream uses and the level of water quality necessary to protect the existing uses of the Androscoggin River shall be maintained and protected. Class B water bodies in the State of New Hampshire are considered as being acceptable for fishing, swimming, and other recreational purposes and, after adequate treatment, for use as water supplies.

State Certification

Under Section 401 of the CWA, EPA is required to obtain certification from the state in which the discharge is located that all water quality standards or other applicable requirements of state law, in accordance with Section 301(b)(1)(C) of the CWA, are satisfied. EPA permits are to include any conditions required in the state's certification as being necessary to ensure compliance with state water quality standards or other applicable requirements of state law. [See CWA Section 401(a) and 40 CFR §124.53(e).] Regulations governing state certification are set out at 40 CFR §124.53 and §124.55.

EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 CFR §122.44(d).

VI. Explanation of Permit's Effluent Limitations

Parameters common to all outfalls

Flow

The permittee is required to report the amount of flow contributed to each outfall for each calendar quarter. The 1978 permit had no flow limit and the permittee reported monthly values for flow which were variable.

pH

The pH water quality criteria for dischargers in New Hampshire are found in Env-Ws 1703.18 and are based on State certification requirements under section 401(d) of the CWA, 40 CFR 124.53 and 124.55. In New Hampshire, the pH limitation range for dischargers to Class B waters is 6.5 to 8.0 Standard Units (S.U.) or as naturally occurs in the receiving water and this is the limit range that has been established for all 3 outfalls.

Oil and Grease

Oil and grease limits are proposed in this draft permit because there is the possibility of oil and grease being present in the station sump from the various waters contributing to it. In addition to monitoring for oil and grease at Outfalls 001 and 002, the permittee must also comply with the Best Management Practices (BMP) Plan requirements in Part III of the permit. These requirements will provide representative effluent data and operational data to measure the success of this Plan and the efficacy of this facility's oil skimmer.

The oil and grease limits are derived from the narrative water quality criteria in the state water quality standards (see Env-Ws 1703.03(c)(1)b and 1703.09). For discharges to Class B waters, the narrative indicates that the waters be free from floating visible substances and contain no oil or grease in concentrations that impair any existing or designated uses. The Region interprets these narrative criteria as prohibiting a discharge to these waters that would cause an oil sheen. EPA has established an average monthly oil and grease limitation of 15 mg/l for this draft permit based on the Region's long standing use of the 15 mg/l standard to represent the concentration at which a visible oil sheen is likely to occur. This limit will ensure the narrative water quality standard for oil and grease is protected. The Region believes that this limit is a reasonable standard and has previously imposed maximum daily oil and grease limits of 15 mg/l in permits at facilities (such as oil terminals) that have a reasonable potential for oil and grease discharge. The technology-based guidelines for Steam Electric Power Generating Point Sources (40 CFR Part 423) limit oil and grease at 15 and 20 mg/l for average monthly and maximum daily values, respectively. Many

previously issued individual permits for hydroelectric facilities and oil terminals facilities have established the 15 mg/l value to indicate the presence of an oil sheen.

The minimum level (ML) of detection for Oil and Grease for the required test method 1664 is 5.0 mg/L. The ML is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. For this permit, the ML for Oil and Grease is defined as 5 mg/l and sample results of 5 mg/l or less shall be reported as zero on the discharge monitoring report.

Parameter Required for Outfall 003 only - Temperature

For equipment-related cooling using NCCW, the pressure on the water side of the heat exchanger is greater than the oil-side pressure, by design. If an equipment failure occurs, water will contaminate the oil instead of being discharged to the receiving water. The only pollutant associated with these discharges is a small amount of heat (thermal energy). The temperature of the cooling water discharge is not expected to be a concern given the dilution provided by the receiving water at the 7Q10 low flow. As mentioned earlier, the critical low flow was previously determined to be 1349 cfs, while the discharge of NCCW is 750 gpm, or about 1.67 cfs, representing a dilution ratio of about 800:1. The temperature monitoring requirement is included for Outfall 003 to provide representative data.

Best Management Practices Plan

The development and implementation of a Best Management Practices (BMP) Plan is a requirement in this proposed permit. The goal of the BMP Plan is to eliminate or reduce the potential for a discharge of pollutants to waters of the United States. In the event the potential cannot be eliminated, the permittee should select BMPs to reduce or eliminate the pollutant loading to the receiving water. The BMP Plan requirements direct the permittee to review the physical equipment, the operational procedures, and the operator training at the facility. The objective of this review is to protect waters of the United States by eliminating or minimizing the potential discharge of any pollutants.

The BMP Plan shall be prepared and implemented by the permittee to eliminate or reduce the pollutants in the discharges associated with work-related operations at the hydroelectric generating facility and to assure compliance with the terms and conditions of this permit. These operations include material storage, site runoff, in-facility transfer, process and material handling, loading and unloading operations, and accidental spillage. Because the sump at this facility includes an oil/water separator as the treatment process, proper operation and maintenance of this oil/water separator is a requirement of the Plan.

An integral part of the BMP plan is scheduled inspection requirements to protect the outfalls that discharge equipment and floor drain-related water, equipment and facility maintenance-related water, and facility maintenance-related internal drainage water discharges from accidental spills. Frequent maintenance inspections and preventative

maintenance plans are effective techniques to identify and eliminate internal drainage system problems before a problematic discharge to the receiving waters(s) occurs. The inspection component of this Plan supplements the effluent monitoring requirements and provides a visual type of monitoring condition on those occasions when the outfall is inaccessible for sampling at certain facilities. Monitoring data collected for these outfalls will provide data to assure compliance with the effluent limitations and to allow the permittee to measure the actual performance of the BMPs, and to determine adjustments for the BMPs, if necessary.

The BMP Plan requirements are detailed in Part III of the permit. The BMP Plan becomes an enforceable element of the permit no later than 90 days following the active date of permit coverage. Consequently, the BMP Plan is as enforceable as any effluent limits in the permit. The BMP Plan contains specific deadlines for preparation and compliance, signature and Plan review conditions, and an annual reporting requirement.

VII. Essential Fish Habitat Determination (EFH)

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq. (1998)), EPA is required to consult with the National Marine Fisheries Services (NMFS) if EPA's action or proposed actions that it funds, permits, or undertakes, may adversely impact any EFH such as: waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 U.S.C. § 1802 (10)).

The Magnuson-Stevens Fishery Conservation and Management Act, as amended, established a new requirement to describe and identify (designate) "essential fish habitat" (EFH) in each federal fishery management plan. Only species managed under a federal fishery management plan are covered. Fishery Management Councils determine which area will be designated as EFH. The Councils have prepared written descriptions and maps of EFH, and include them in fishery management plans or their amendments. EFH designations for New England were approved by the Secretary of Commerce on March 3, 1999.

The Androscoggin River is designated as EFH for Atlantic salmon (*Salmo salar*). According to New Hampshire Fish and Game Department (NHFGD), there is presently no Atlantic salmon stocking effort in the New Hampshire waters of the Androscoggin River, and there are no plans for stocking in the near future. The river is heavily managed for hydroelectric power as there are six dams located downstream of and within one mile of the facility. No provisions have been made for upstream or downstream fish passage at any of these dams. There has been no salmon habitat evaluation conducted to date by the NHFGD in the vicinity of the facility.

EPA believes the draft permit adequately protects Androscoggin River EFH, and therefore additional mitigation is not warranted. A formal EFH consultation with NMFS is not required. If adverse effects to EFH do occur as a result of this permitting action, or if new information becomes available that changes the basis for this determination, then

NMFS will be notified and a consultation will be promptly initiated. During the public comment period, EPA has provided a copy of the Draft Permit and Fact Sheet to NMFS for consultation under Section 305(b)(2) of the Magnuson-Stevens Act for EFH.

VIII. Endangered Species Act

Section 7(a) of the Endangered Species Act (ESA) of 1973, as amended grants authority to and imposes requirements upon Federal agencies regarding endangered or threatened species of fish, wildlife, or plants (“listed species”) and habitat of such species that has been designated as critical (a “critical habitat”). The ESA requires every Federal agency, in consultation with and with the assistance of the Secretary of Interior, to insure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The U.S. Fish and Wildlife Service (USFWS) typically administers Section 7 consultations for bird, terrestrial, and freshwater aquatic species. The National Marine Fisheries Service (NMFS) typically administers Section 7 consultations for marine species and anadromous fish.

EPA has reviewed the federal endangered or threatened species of fish, wildlife, or plants to see if any such listed species might potentially be impacted by the issuance of this NPDES permit. Due to the absence of effective fish passage at the dams downstream of the facility and other nearby facilities, it is highly unlikely that protected anadromous fish species (Atlantic Salmon) would be present in the vicinity of the facility. Based on the normal distribution of listed freshwater species, it is also highly unlikely that any other species of concern would be present in the vicinity of the facility. Based on this assessment, consultation under Section 7 of the ESA with NMFS is not required.

The proposed effluent limits in the draft permit are sufficiently stringent to assure that WQS will be met for aquatic life protection and for all species, including endangered and threatened species. During the public comment period, EPA has provided a copy of the Draft Permit and Fact Sheet to both NMFS and USFWS.

Other Conditions

The remaining conditions of the permit are based on the NPDES regulations, 40 CFR Parts 122 through 125, and consist of management requirements common to all permits.

IX. State Certification Requirements

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving water(s) either certifies that the effluent limitations and/or conditions contained in the permit are stringent enough to assure, among other things, that the discharge will not cause the receiving water to violate State Water Quality Standards or the Agency waives its right to certify as set forth in 40 C.F.R. 124.53. The NHDES is the certifying authority within the State of New Hampshire. EPA has

discussed this draft permit with staff at the NHDES and anticipates that the draft permit will be certified by the State.

Upon public noticing of this draft permit, EPA is formally requesting that the NHDES make a written determination concerning certification. The State will be deemed to have waived its right to certify unless certification is received within 60 days of receipt of this request.

X. Public Comment Period, Public Hearing, and Procedures for Final Decision

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the U.S. EPA, Industrial Permits Branch, Mailcode OEP 06-1, 5 Post Office Square, Suite 100, Boston, Massachusetts 02109-3912. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final permit decision, any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of 40 CFR 124.74, 48 Fed. Reg. 14279-14280 (April 1, 1983).

XI. EPA Contact

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays, from the EPA contact below:

George Papadopoulos, Industrial Permits Branch
5 Post Office Square - Suite 100 - Mailcode OEP 06-1
Boston, MA 02109-3912
Telephone: (617) 918-1579 FAX: (617) 918-1505
[E-mail: Papadopoulos.george@epa.gov](mailto: Papadopoulos.george@epa.gov)

March 24, 2011
Date

Stephen S. Perkins, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

Response to Public Comments

From March 31, 2011 to April 29, 2011, the United States Environmental Protection Agency (“EPA”) and the New Hampshire Department of Environmental Services (“NHDES”) (together, the “Agencies”) solicited public comments on a draft NPDES permit developed pursuant to a permit renewal application from Public Service Company of New Hampshire (“Permittee”) for the reissuance of a National Pollutant Discharge Elimination System (“NPDES”) permit. This permit authorizes the discharge of equipment-related non-contact cooling water, equipment and floor drain water, maintenance-related water during flood/high water events, and equipment-related backwash strainer water from Outfalls 001, 002, 003 and 004 to the Androscoggin River from a hydroelectric generating facility in Berlin, New Hampshire referred to as the J. Brodie Smith Hydroelectric Station.

After a review of the comments received, EPA has made a final decision to issue this permit authorizing these discharges. The final permit is identical to the draft permit that was available for public comment, with the exception of the changes explained below.

Copies of the final permit may be obtained by writing or calling EPA’s NPDES Industrial Permits Branch (OEP 06-1), Office of Ecosystem Protection, 5 Post Office Square, Suite 100, Boston, MA 02109-3912; Telephone: (617) 918-1579.

Comments submitted by William H. Smagula, Director of Generation for the Public Service Company of New Hampshire (PSNH):

Comment 1: Comment Specific to Condition found in Part 1, Section D, Item 2.

“The permittee shall attach a copy of the laboratory case narrative to the respective DMR Form submitted to EPA and NHDES for each sampling event reported. The laboratory case narrative shall include a copy of the laboratory data sheets for each analysis, providing the test method, the detection limits for each analyte, and a brief discussion of whether appropriate Quality Assurance/Quality Control (QA/QC) procedures were met and were within acceptable ranges.”

PSNH believes that the requirement to supply the EPA and NHDES with copies of laboratory case narratives with each DMR submittal is excessive and unnecessary and respectfully requests that this requirement be removed from the permit to maintain consistency with the conditions found in Hydroelectric Generating Facility General NPDES Permit (Hydro GP) which was issued to six of PSNH’s hydroelectric stations in 2010.

PSNH reports all monitoring information to the EPA using the NetDMR web-based reporting tool. One of the benefits of the NetDMR reporting is a reduced reporting burden on the regulated community. Requiring that additional information, in particular, laboratory data sheets, be submitted with the DMR is unnecessary and will only make the reporting effort more time consuming and difficult. PSNH maintains all field notebooks, laboratory data sheets, quality assurance, and method information at the station office. This information is available for review by EPA and DES during inspections and upon request.

Statements concerning the appropriate test methods, detection limits, and QA/QC procedures that were used and were within acceptable ranges is currently being provided in the cover letter that accompanies the NetDMR submittal.

Response to Comment 1: This permit condition has been removed from the final permit. Although this condition has been required of some permittees after consideration of the quantity and type of chemical analyses to be conducted, it is not a requirement of the Hydro GP. EPA believes that it was inadvertently added to this permit without proper consideration. The permittee is correct that such laboratory reports would be made available to the Agencies upon request and the Agencies believe that this is a satisfactory way to access such information if any questions about it arise.

Other changes to the final permit:

There has been a correction made to footnote 5 on both Page 2 and Page 3 regarding the reporting of values for the parameter “oil & grease”. The draft permit language for this footnote on both pages read, “Oil and Grease shall be tested using EPA test method 1664 Revision A as approved in 40 CFR 136. The minimum level (ML) of detection for Oil and Grease for test method 1664 is 5.0 mg/l. For this permit, the ML for Oil and Grease is defined as 5 mg/l and sample results of **5 mg/l or less** shall be reported as zero on the discharge monitoring report.”

The Minimum Level (ML) for a particular test method is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. Therefore, for oil & grease, the value of 5 mg/l can be measured with a known level of confidence, whereas values below 5 mg/l could not be.

Therefore, acknowledging that the value of 5 mg/l for oil & grease would be a reliably detected value and to be consistent with other permits, the language for both footnotes has been changed to the following: “For this permit, the ML for Oil and Grease is defined as 5 mg/l and sample results of **less than 5 mg/l** shall be reported as zero on the discharge monitoring report.”

May 3, 2011