

AGENCY OF NATURAL RESOURCES  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
WASTEWATER MANAGEMENT DIVISION  
103 SOUTH MAIN STREET  
WATERBURY, VERMONT 05671-0405

FACT SHEET

March 2011

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

FILE NO.: 14-08

PROJECT ID NO.: NS88-0013

NPDES NO: VT0000787

PERMIT NO.: 3-1393

NAME AND ADDRESS OF APPLICANT:

TransCanada Hydro Northeast, Inc  
2 Killen Street  
North Walpole, NH 03609

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

351 Wilder Dam Road  
Wilder, Vermont

RECEIVING WATERS AND CLASSIFICATION: Connecticut River: Class B. Class B waters are suitable for bathing and recreation; irrigation and agricultural uses; good fish habitat; good aesthetic value; acceptable of public water supply with filtration and disinfection.

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

The above named applicant has applied to the Vermont Department of Environmental Conservation for renewal of its permit to discharge into the designated receiving water. The facility generates non-contact cooling water and other miscellaneous wastewaters.

The complete application, draft permit, and other information are on file and may be inspected at the VTDEC, Wastewater Management Division, Waterbury Office. Copies will be made at a cost based on the previous Secretary of State Official Fee Schedule for Copying Public Records from 8:00 am to 4:30 pm, Monday through Friday

II. Description of Discharge

This permit authorizes the discharge of 2.3 mgd, daily maximum, of non-contact cooling water and miscellaneous wastewaters. A quantitative description of the discharge in terms of significant effluent parameters is presented in section IV. below.

### III. Limitations and Conditions

The effluent limitations of the permit, the monitoring requirements, and any implementation schedule (if required), may be found on the following pages of the permit:

Effluent Limitations: Page 2

Monitoring Requirements: Page 2

### IV. Permit Basis and Explanation of Effluent Limitation Derivation

#### **History & Summary**

TransCanada Hydro Northeast, Inc. owns and operates a hydroelectric power generating facility at 351 Wilder Dam Road, Wilder, VT. The facility uses water for cooling in the electrical generation process. Water is extracted from the Connecticut River and is directed through the facility to provide cooling and commingles with the water passing through the turbines. This wastewater is then discharged to the Connecticut River.

The summer 7Q10 flow of the Connecticut River at the point of discharge is approximately 859 cfs. The low median monthly summer flow of the Connecticut River at the point of discharge approximately 1995 cfs.

#### **Effluent Limitations**

**Discharge Point S/N 001: Non-Contact Cooling Water from Bearing Units #1, #2, and #3, Air Compressor Cooling Water, Internal Drainage, Intake Water from the Turbines and Sump Waters from Unit #3**

#### **Flow**

The permit contains a flow limitation of 2.3 MGD, daily maximum. Since all these wastestream combine into a single outfall, this limitation is based on the flow projected combined discharge from all wastestreams units and is unchanged from the current permit. Quarterly flow monitoring is required.

#### **Temperature**

Due to the cooling process associated with the Bearing Units and Air Compressor, temperature has been identified as a potential pollutant of concern in the discharge. The permit contains an effluent temperature limitation of 90°F, daily maximum, and is unchanged from the current permit. This limitation ensures compliance with the requirements of Section 3-01B.1 of the Vermont Water Quality Standards (VWQS). Based on the operation of the facility, the maximum volume of cooling water discharged is 0.405 MGD. Therefore the discharge of this cooling water has a very small instream waste concentration (0.0007) at 7Q10 flow conditions. Also this cooling water mixes with the other wastestreams, including intake water from the river from the turbines, in the outfall pipe prior to discharge and will not cause a measurable change in the river temperature downstream of the outfall. Temperature monitoring is required once per quarter and is unchanged from the current permit.

#### **pH**

The permit contains a pH limitation of 6.5 to 8.5 SU. This limitation is unchanged from the current permit and is based on Section 3-01.B.9 of the Vermont Water Quality Standards. Sampling of pH is required once per quarter. This sampling requirement is unchanged from the current permit.

**Oil and Grease**

The internal drainage water and sump waters contact pumps and other equipment, therefore oil and grease has been identified as a pollutant of concern. Therefore, the permit contains an Oil and Grease limitation of 20 mg/l, daily maximum and is established in support of the narrative standard in Section 3-01.B.5 of the Vermont Water Quality Standards. Sampling is required once per quarter. This limitation and sampling frequency is unchanged from the current permit.

**V. Procedures for Formulation of Final Determinations**

The public comment period for receiving comments on this draft permit is from February 22, 2011 through March 24, 2011. During this time interested persons may submit their written views on the draft permit. All written comments will be retained by the Department and considered in the formulation of the final determination to issue, deny or modify the draft permit. The period of comment may be extended at the discretion of the Department.

Written comments should be sent to:

Vermont Agency of Natural Resources  
Department of Environmental Conservation  
Wastewater Management Division - Sewing Building  
103 South Main Street  
Waterbury, VT 05671-0405

Comments may also be faxed to: 802-241-2596 or submitted by e-mail using the e-mail comment provisions included at <http://www.anr.state.vt.us/dec/ww/Drafts.htm>

Any interested person or groups of persons may request or petition for a public hearing with respect to this draft permit. Any such request or petition for a public hearing shall be filed within the public comment period described above and shall indicate the interest of the party filing such request and the reasons why a hearing is warranted.

The Department will hold a hearing if there is significant public interest in holding such a hearing. Any public hearing brought in response to such a request or petition will be held in the geographical area of the draft discharge or other appropriate area, at the discretion of the Department and may, as appropriate, consider related groups of draft permits. Any person may submit oral or written statements and data concerning the draft permit at the public hearing. The Department may establish reasonable limits on the time allowed for oral statements and may require the submission of statements in writing. All statements, comments, and data presented at the public hearing will be retained by the Department and considered in the formulation of the final determination to issue, deny, or modify the draft permit.