



Vermont Department of Environmental Conservation

Watershed Management Division
1 National Life Drive, Main-2
Montpelier VT 05620-3522

Agency of Natural Resources

[phone] 802-490-6182
[fax] 802-828-1544

December 27, 2012

Stephen D Pike
Enel Green Power NA, Inc.
One Tech Drive – Suite 220
Andover, MA 01810

Re: Draft Discharge Permits #3-1549, #3-1550, and #3-1551

Dear Mr Pike:

We are proposing to issue you the above referenced permits. A draft of each permit is enclosed for your review and comment. The draft permits are based on the information contained in your applications and requirements of State and/or Federal laws and regulations providing for the protection of water quality. If the draft permits do not correctly reflect the present operation of the hydro facilities, or if you have any questions, please contact us immediately.

In order to facilitate the issuance of your permits in the shortest possible time, we are also placing them on the required 30-day public notice immediately. If we do not hear from you within 30 days of the date of this letter and if there is no response within 30 days which requires a public hearing or major permit modification, the permits will be sent to the Secretary of the Agency of Natural Resources or her designated representative for final approval and signature.

If you have questions regarding the draft permits or you wish to meet with us to discuss them, please contact Carol Carpenter at 490-6182.

Sincerely,

A handwritten signature in black ink, appearing to read "Ernest F. Kelley".

Ernest F Kelley, Manager
Wastewater Management Program

cc: Christopher Walton, Capaccio Environmental Engineering

AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
ONE NATIONAL LIFE DRIVE, MAIN BUILDING, 2nd FLOOR
MONTPELIER VT 05620-3522

Permit No. 3-1550
PIN: EJ06-0367
NPDES No. VT0120014

DRAFT
DISCHARGE PERMIT

In compliance with the provisions of the Vermont Water Pollution Control Act, as amended, (10 V.S.A. Chapter 47 §1251 et. seq), the Vermont Water Pollution Control Permit Regulations and the Federal Clean Water Act, as amended (33 U.S.C. § 1251 et. seq),

Missisquoi Associates
One Tech Drive, Suite 220
Andover, MA 01810

(hereinafter referred to as the "permittee") is authorized, by the Secretary, Agency of Natural Resources, to discharge from a facility located at:

Sheldon Springs Hydroelectric Project
121 Heather Lane
Sheldon Springs, Vermont

to the Missisquoi River, Class B at the point of discharge in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III hereof.

This permit shall become effective on the date of signing.

This permit and the authorization to discharge shall expire on December 31, 2017.

David K. Mears, Commissioner
Department of Environmental Conservation

By
Peter LaFlamme, Director
Watershed Management Division

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the date of signing and lasting through December 31, 2017, the permittee is authorized to discharge from outfall serial number S/N 001: **Non-contact cooling water from Unit 1 Main Pump House**. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow	0.108 MGD	0.216 MGD	1 x quarterly	Estimate
pH	Between 6.5 – 8.5 Standard Units		1 x quarterly	Grab
Temperature	Monitor only, °F		1 x quarterly	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at a representative location prior to discharge to the tailrace.

- ⁽¹⁾ Flow, temperature, and pH monitoring shall be done on the same day.

2. During the period beginning on the date of signing and lasting through December 31, 2017, the permittee is authorized to discharge from outfall serial number S/N 002: **Non-contact cooling water from Unit 2 Main Pump House**. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow	0.108 MGD	0.216 MGD	1 x quarterly	Estimate
pH	Between 6.5 – 8.5 Standard Units		1 x quarterly	Grab
Temperature	Monitor only, °F		1 x quarterly	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at a representative location prior to discharge to the tailrace.

- ⁽¹⁾ Flow, temperature, and pH monitoring shall be done on the same day.

3. During the period beginning on the date of signing and lasting through December 31, 2017, the permittee is authorized to discharge from outfall serial number **S/N 003: Non-contact cooling water from Main Pump House air compressor** and **S/N 004: Non-contact cooling water from Main Pump House HVAC.**

No effluent limits or monitoring is required for these negligible waste streams.

4. During the period beginning on the date of signing and lasting through December 31, 2017, the permittee is authorized to discharge from outfall serial number **S/N 005: Non-contact cooling water from non-drive end of turbines (Units 4 and 5).** Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow	7200 gpd	14,400 gpd	1 x annually	Estimate
pH	Between 6.5 – 8.5 Standard Units		1 x annually	Grab
Temperature	Monitor only, °F		1 x annually	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at a representative location prior to discharge to the tailrace.

- (1) Flow, temperature, and pH monitoring shall be done on the same day during the month of August.

5. During the period beginning on the date of signing and lasting through December 31, 2017, the permittee is authorized to discharge from outfall serial number **S/N 006: Non-contact cooling water from drive end of turbines (Units 4 and 5).** Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow	14,400 gpd	28,800 gpd	1 x annually	Estimate
pH	Between 6.5 – 8.5 Standard Units		1 x annually	Grab
Temperature	Monitor only, °F		1 x annually	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at a representative location prior to discharge to the tailrace.

- (1) Flow, temperature, and pH monitoring shall be done on the same day during the month of August.

6. During the period beginning on the date of signing and lasting through December 31, 2017, the permittee is authorized to discharge from outfall serial number S/N 007: **Non-contact cooling water from non-drive end of turbine (Units 3)**. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow	3600 gpd	7200 gpd	1 x annually	Estimate
pH	Between 6.5 – 8.5 Standard Units		1 x annually	Grab
Temperature	Monitor only, °F		1 x annually	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at a representative location prior to discharge to the tailrace.

- (1) Flow, temperature, and pH monitoring shall be done on the same day during the month of August.

7. During the period beginning on the date of signing and lasting through December 31, 2017, the permittee is authorized to discharge from outfall serial number S/N 008: **Non-contact cooling water from drive end of turbine (Units 3)**. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow	3600 gpd	7200 gpd	1 x annually	Estimate
pH	Between 6.5 – 8.5 Standard Units		1 x annually	Grab
Temperature	Monitor only, °F		1 x annually	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at a representative location prior to discharge to the tailrace.

- (1) Flow, temperature, and pH monitoring shall be done on the same day during the month of August.

B. SPECIAL CONDITIONS

1. The station sump shall be inspected weekly and cleaned as necessary. Any oil or absorbent materials shall be disposed of in accordance with state and federal regulations and in such a manner that prevents discharges of these materials to waters of the State.
2. The discharge of cleaning or caustic chemicals to the tailrace is prohibited.
3. This discharge shall not cause a violation of Water Quality Standards in the receiving water.

C. REAPPLICATION

If the permittee desires to continue to discharge after the expiration date of this permit, he shall apply on the application forms then in use at least 180 days before the permit expires.

Reapply for a Discharge Permit by June 30, 2017.

D. OPERATING FEES

This discharge is subject to operating fees. The permittees shall submit the operating fees in accord with the procedures provided by the Secretary.

E. MONITORING AND REPORTING**1. Sampling and Analysis**

The sampling, preservation, handling, and analytical methods used shall conform to regulations published pursuant to Section 304(g) of the Clean Water Act, under which such procedures may be required. Guidelines establishing these test procedures have been published in the Code of Federal Regulations, Title 40, Part 136 (Federal Register, Vol. 56, No. 195, July 1, 1999 or as amended).

Samples shall be representative of the volume and quality of effluent discharged over the sampling and reporting period. All samples are to be taken during normal operating hours. The permittee shall identify the effluent sampling location used for each discharge.

2. Reporting

The Permittee is required to submit monitoring results as specified in an annual report. **Reports are due annually on January 15th**, following the effective date of this permit.

If, in any reporting period, there has been no discharge, the permittee must submit that information by the report due date.

Signed copies of these, and all other reports required herein, shall be submitted to the Secretary at the following address:

Agency of Natural Resources
Department of Environmental Conservation
Watershed Management Division
One National Life Drive, Main Building, 2nd Floor
Montpelier VT 05620-3522

All reports shall be signed:

- a. In the case of corporations, by a principal executive officer of at least the level of vice president, or his/her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the permit form originates;
- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of a municipal, State, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

3. Recording of Results

The permittee shall maintain records of all information resulting from any monitoring activities required including:

- a. The exact place, date, and time of sampling;
- b. The dates and times the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques and methods used including sample collection handling and preservation techniques;
- e. The results of all required analyses.
- f. The records of monitoring activities and results, including all instrumentation and calibration and maintenance records;
- g. The original calculation and data bench sheets of the operator who performed analysis of the influent or effluent pursuant to requirements of Section I.(A) of this permit.

The results of monitoring requirements shall be reported (in the units specified).

4. Additional Monitoring

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values. Such increased frequency shall also be indicated.

PART II**A. MANAGEMENT REQUIREMENTS****1. Facility Modification / Change in Discharge:**

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties pursuant to 10 V.S.A. Chapters 47, 201 and/or 2011. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new permit application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Noncompliance Notification

In the event the permittee is unable to comply with any of the conditions of this permit due, among other reasons, to:

- a. breakdown or maintenance of waste treatment equipment (biological and physical-chemical systems including, but not limited to, all pipes, transfer pumps, compressors, collection ponds or tanks for the segregation of treated or untreated wastes, ion exchange columns, or carbon absorption units),
- b. accidents caused by human error or negligence, or
- c. other causes such as acts of nature,

the permittee shall notify the Secretary within 24 hours of becoming aware of such condition or by the next business day and shall provide the Secretary with the following information, in writing, within five (5) days:

- i. cause of non-compliance
- ii. a description of the non-complying discharge including its impact upon the receiving water;
- iii. anticipated time the condition of non-compliance is expected to continue or, if such condition has been corrected, the duration of the period of non-compliance;
- iv. steps taken by the permittee to reduce and eliminate the non-complying discharge; and

- v. steps to be taken by the permittee to prevent recurrence of the condition of non-compliance.

3. Operation and Maintenance

All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:

- a. The permittee shall, at all times, maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and testing functions required to insure compliance with the conditions of this permit; and
- c. The operation and maintenance of this facility shall be performed only by qualified personnel.

4. Quality Control

The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at regular intervals to ensure accuracy of measurements, or shall ensure that both activities will be conducted.

The permittee shall keep records of these activities and shall provide such records upon request of the Secretary.

The permittee shall analyze any additional samples as may be required by the Agency of Natural Resources to ensure analytical quality control.

5. Bypass

The diversion or bypass of facilities, necessary to maintain compliance with the terms and conditions of this permit, is prohibited, except where authorized under terms and conditions of an emergency pollution permit issued pursuant to 10 V.S.A. Section 1268.

6. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any adverse impact to waters of the State resulting from non-compliance with any condition specified in this permit, including accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, and shall be submitted to Department representatives upon request. This period shall be extended during the course of unresolved litigation regarding the discharge of pollutants or when requested by the Secretary.

8. Solids Management

Collected screenings, sludges, and other solids removed in the course of treatment and control of wastewaters shall be stored, treated and disposed of in accord with 10 V.S.A., Chapter 159 and with the terms and conditions of any certification, interim or final, transitional operation authorization or order issued pursuant to 10 V.S.A., Chapter 159 that is in effect on the effective date of this permit or is issued during the term of this permit.

9. Emergency Pollution Permits

Maintenance activities, or emergencies resulting from equipment failure or malfunction, including power outages, which result in an effluent which exceeds the effluent limitations specified herein, shall be considered a violation of the conditions of this permit, unless the permittee immediately applies for, and obtains, an emergency pollution permit under the provisions of 10 V.S.A., Chapter 47, Section 1268. The permittee shall notify the Department of the emergency situation by the next working day.

10 V.S.A., Chapter 47, Section 1268 reads as follows:

"When a discharge permit holder finds that pollution abatement facilities require repairs, replacement or other corrective action in order for them to continue to meet standards specified in the permit, he may apply in the manner specified by the secretary for an emergency pollution permit for a term sufficient to effect repairs, replacements or other corrective action. The permit may be issued without prior public notice if the nature of the emergency will not provide sufficient time to give notice; provided that the secretary shall give public notice as soon as possible but in any event no later than five days after the effective date of the emergency pollution permit. No emergency pollution permit shall be issued unless the applicant certifies and the secretary finds that:

- (1) there is no present, reasonable alternative means of disposing of the waste other than by discharging it into the waters of the state during the limited period of time of the emergency;
- (2) the denial of an emergency pollution permit would work an extreme hardship upon the applicant;

- (3) the granting of an emergency pollution permit will result in some public benefit;
- (4) the discharge will not be unreasonably harmful to the quality of the receiving waters;
- (5) the cause or reason for the emergency is not due to wilful or intended acts or omissions of the applicant."

Application shall be made to the Secretary of the Agency of Natural Resources, Department of Environmental Conservation, One National Life Drive, Main Building, 2nd Floor, Montpelier VT 05620-3522.

10. Power Failure

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. Provide an alternative power source sufficient to operate the wastewater control facilities, or if such alternative power source is not in existence,
- b. Halt, reduce, or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

B. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Secretary or authorized representative, upon the presentation of proper credentials:

- a. to enter upon the permittee's premises in which an effluent source or any records required to be kept under terms and conditions of the permit are located;
- b. to have access to and copy any records required to be kept under the terms and conditions of the permit;
- c. to inspect any monitoring equipment or method required in the permit; or
- d. to sample any discharge of pollutants.

2. **Transfer of Ownership or Control**

This permit is not transferable without prior written approval of the Secretary. All application and operating fees must be paid in full prior to transfer of this permit. In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall provide a copy of this permit to the succeeding owner or controller and shall send written notification of the change in ownership or control to the Secretary. The permittee shall also inform the prospective owner or operator of their responsibility to make an application for transfer of this permit.

This request for transfer application must include as a minimum:

- a. A properly completed application form provided by the Secretary and the applicable processing fee.
- b. A written statement from the prospective owner or operator certifying:
 - i.. The conditions of the operation that contribute to, or affect, the discharge will not be materially different under the new ownership.
 - ii. The prospective owner or operator has read and is familiar with the terms of the permit and agrees to comply with all terms and conditions of the permit.
 - iii. The prospective owner or operator has adequate funding to operate and maintain the treatment system and remain in compliance with the terms and conditions of the permit.
- c. The date of the sale or transfer.

The Secretary may require additional information dependent upon the current status of the facility operation, maintenance, and permit compliance.

3. **Confidentiality**

Pursuant to 10 V.S.A. 1259(b):

“Any records, reports or information obtained under this permit program shall be available to the public for inspection and copying. However, upon a showing satisfactory to the secretary that any records, reports or information or part thereof, other than effluent data, would, if made public, divulge methods or processes entitled to protection as trade secrets, the secretary shall treat and protect those records, reports or information as confidential. Any records, reports or information accorded confidential treatment will be disclosed to authorized representatives of the state and the United States when relevant to any proceedings under this chapter.”

4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. violation of any terms or conditions of this permit;
- b. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

5. Toxic Effluent Standards

That if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under section 307(a) of the Federal Clean Water Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the secretary shall revise or modify the permit in accordance with the toxic effluent standard or prohibition and so notify the permittee.

6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under 10 V.S.A. §1281.

7. Civil and Criminal Liability

Except as provided in, "Bypass" (Part II, paragraph A.5.), "Power Failure" (Part II, paragraph A.10.), and "Emergency Pollution Permits" (Part II, paragraph A.9.), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Civil and criminal penalties for non-compliance are provided for in 10 V.S.A. Chapters 47, 201 and 211.

8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation.

9. Property Rights

Issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private

property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

10. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

11. Authority

This permit is issued under authority of 10 V.S.A. §1258 and §1259 of the Vermont Water Pollution Control Act, the Vermont Water Pollution Control Permit Regulations and Section 402 of the Clean Water Act, as amended. 10 V.S.A. §1259 states that: "No person shall discharge any waste, substance, or material into waters of the State, nor shall any person discharge any waste, substance, or material into an injection well or discharge into a publicly owned treatment works any waste which interferes with, passes through without treatment, or is otherwise incompatible with those works or would have a substantial adverse effect on those works or on water quality, without first obtaining a permit for that discharge from the Secretary".

PART III

A. OTHER REQUIREMENTS

This permit shall be modified, suspended or revoked to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b) (2) (C), and (D), 304(b) (2), and 307 (a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

The permit as modified under this paragraph shall also contain any other requirements of the Vermont Water Pollution Control Act then applicable.

B. DEFINITIONS

For purposes of this permit, the following definitions shall apply:

The Act - The Vermont Water Pollution Control Act, 10 V.S.A. Chapter 47

Annual Average - The highest allowable average of daily discharges calculated as the sum of all daily discharges (mg/l, lbs or gallons) measured during a calendar year divided by the number of daily discharges measured during that year.

Average - The arithmetic means of values taken at the frequency required for each parameter over the specified period.

The Clean Water Act - The federal Clean Water Act, as amended.

Composite Sample - A sample consisting of a minimum of one grab sample per hour collected during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportionally to flow over that same time period.

Daily Discharge - The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.

For pollutants with limitation expressed in pounds the daily discharge is calculated as the total pounds of pollutants discharged over the day.

For pollutants with limitations expressed in mg/l the daily discharge is calculated as the average measurement of the pollutant over the day.

Grab Sample - An individual sample collected in a period of less than 15 minutes.

Incompatible Substance (Pollutant) - Any waste being discharged into the treatment works which interferes with, passes through without treatment, or is otherwise incompatible with said works or would have a substantial adverse effect on these works or on water quality. This includes all pollutants required to be regulated under the Federal Clean Water Act.

Instantaneous Maximum - A value not to be exceeded in any grab sample.

Major Contributing Industry - One that: (1) has a flow of 50,000 gallons or more per average work day; (2) has a flow greater than five percent of the flow carried by the municipal system receiving the waste; (3) has in its wastes a toxic pollutant in toxic amounts as defined in standards issued under Section 307(a) of the Act; or (4) has a significant impact, either singly or in combination with other contributing industries, on a publicly owned treatment works or on the quality of effluent from that treatment works.

Maximum Day (maximum daily discharge limitation) - The highest allowable "daily discharge" (mg/l, lbs or gallons).

Mean - The mean value is the arithmetic mean.

Monthly Average - (Average monthly discharge limitation) - The highest allowable average of daily discharges (mg/l, lbs or gallons) over a calendar month, calculated as the sum of all daily discharges (mg/l, lbs or gallons) measured during a calendar month divided by the number of daily discharges measured during that month.

NPDES - The National Pollutant Discharge Elimination System.

Secretary - The Secretary of the Agency of Natural Resources

State Certifying Agency Agency of Natural Resources
Department of Environmental Conservation
Watershed Management Division
One National Life Drive, Main Building, 2nd Floor
Montpelier VT 05620-3522

Weekly Average - (Average weekly discharge limitation) - The highest allowable average of daily discharges (mg/l, lbs or gallons) over a calendar week, calculated as the sum of all daily discharges (mg/l, lbs or gallons) measured during a calendar week divided by the number of daily discharges measured during that week.

AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
1 NATIONAL LIFE DRIVE – MAIN 2
MONTPELIER, VERMONT 05620-3522

FACT SHEET
(January 2013)

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

NPDES NO: VT0120014
PERMIT NO: 3-1550
PROJECT ID NO: EJ06-0367

NAME AND ADDRESS OF APPLICANT:

Missisquoi Associates
One Tech Drive, Suite 220
Andover MA 01810

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Sheldon Springs Hydroelectric Project
121 Heather Lane
Sheldon Springs, Vermont

RECEIVING WATER: Missisquoi River

CLASSIFICATION: Class B. Class B waters are suitable for bathing and recreation, irrigation and agricultural uses; good fish habitat; good aesthetic value; acceptable for public water supply with filtration and disinfection. A waste management zone is a specific reach of Class B waters designated by a permit to accept the discharge of properly treated wastes that prior to treatment contained organisms pathogenic to human beings.

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

The above named applicant applied on November 15, 2012 to the Vermont Department of Environmental Conservation for a permit to discharge into the designated receiving water. At this time the Department has made a tentative decision to issue the discharge permit. The facility is engaged in the generation of hydroelectric power. The non-contact cooling water discharge is from the Sheldon Springs Hydroelectric Project to the Missisquoi River.

II. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters is based on state and federal laws and regulations and the discharge permit application.

The complete application, draft permit, and other information used in the development of this permit are on file and may be inspected at the VTDEC, Watershed Management Division, 1 National Life Drive, Montpelier, VT 05620-3522. Copies will be made at a cost based on the current Secretary of State Official Fee Schedule for Copying Public Records from 8:00 AM to 4:30 PM, Monday through Friday. The draft permit and fact sheet may also be viewed on the Division's website at <http://www.watershedmanagement.vt.gov/>

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:	Pages 1 through 4 of 15
Monitoring Requirements:	Pages 1 through 4 of 15

IV. Permit Basis and Explanation of Effluent Limitation Derivation

Missisquoi Associates owns the existing Sheldon Springs Hydroelectric Project located in Sheldon Springs, Vermont. The facility discharges non-contact cooling water from eight separate outfalls to the tailrace prior to the Missisquoi River.

All eight outfalls consist of non-contact cooling water. S/N 001 represents the Unit 1 turbine; S/N 002 represents the Unit 2 turbine; S/N 003 represents the air compressor unit; S/N 004 represents the HVAC unit; S/N 005 represents the non-drive end of Units 4 and 5; S/N 006 represents the drive end of Units 4 and 5; S/N 007 represents the non-drive end of Unit 3; and S/N 008 represents the drive end of Unit 3.

The 7Q10 flow of the Missisquoi River used for calculation purposes for this permit is 31.3 CFS. The application indicates a maximum daily flow from the hydro facility of 0.490 MGD (0.76 CFS). The calculated instream waste concentration (IWC) is therefore 0.024.

Flow - The effluent flow for S/N 001 is 0.108 MGD, monthly average, and 0.216 MGD, daily maximum. The effluent flow for S/N 002 is 0.108 MGD, monthly average, and 0.216 MGD, daily maximum. The effluent flows for S/N 003 and 004 are negligible. The effluent flow for S/N 005 is 7200 gpd, monthly average, and 14,400 gpd, daily maximum. The effluent flow for S/N 006 is 14,400 gpd, monthly average, and 28,800 gpd, daily maximum. The effluent flow for S/N 007 is 3600 gpd, monthly average, and

7200 gpd, daily maximum. The effluent flow for S/N 008 is 3600 gpd, monthly average, and 7200 gpd, daily maximum. The facility does not continuously discharge.

pH - The pH limitation for all outfalls is 6.5 - 8.5 Standard Units as specified in Section 3-01 B.9. in the Vermont Water Quality Standards. Quarterly monitoring is required for S/N 001 and 002. Annual monitoring, during the month of August, is required for the remaining outfalls (with the exception of S/N 003 and 004 which do not have monitoring requirements).

Temperature – Based on the application, the range of temperature in the discharge is 34° to 78° F. Assuming a summertime high temperature of 75° F in the river, desk top calculations indicate that the discharge is not expected to raise the ambient temperature of the river by more than 0.2° F assuming a maximum day discharge from all the outfalls (i.e. worst case).

To ensure compliance with the requirements of the Water Quality Standards, (see Section 3-01B.1.c. *Warm Water Fish Habitat*, Table 2.) quarterly temperature monitoring is being required of the discharges for S/N 001 and 002. Annual monitoring, during the month of August, is required for S/N 005, 006, 007, and 008. No monitoring is required for S/N 003 and 004 as the discharge is expected to be negligible.

Antidegradation – Section 1-03 B. of the Vermont Water Quality Standards requires that the existing uses of the receiving waters be protected and maintained. The Secretary must consider the following factors in making a determination:

- a. Aquatic biota and wildlife that utilize or are present in the waters;
- b. Habitat that supports existing aquatic biota, wildlife and plant life;
- c. The use of the waters for recreation or fishing;
- d. The use of the water for water supply, or commercial activity that directly depends on the preservation of an existing high level of water quality; and
- e. with regards to the factors considered under (a) and (b) above, the evidence of the uses ecological significance in the functioning of the ecosystem or evidence of the use's rarity.

These factors have been considered in conjunction with this discharge and it has been determined that the existing uses of the receiving water will be maintained.

Section 1-03 C. also requires that higher quality water be protected and the risk minimized to existing and designated uses. In addition a limited reduction in the existing higher quality of the waters may only be allowed if:

- a. the adverse economic and social impacts on the people of the state from maintaining the higher quality waters would be substantial and widespread;
- b. these adverse impacts would exceed the environmental, economic, social, and other benefits of maintaining the higher water quality; and

- c. there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources, and all cost effective and reasonable accepted agricultural practices and best management practices, as appropriate for nonpoint source control, consistent with state law.

With respect to these requirements, this existing hydroelectric facility provides electricity to the residents of Vermont. Assuming a maximum daily flow of 0.490 MGD, the Instream Waste Concentration (IWC) is only 0.024. Consequently, there is not a measurable change in the quality of the receiving water. Therefore, the requirements of a. b. and c. above have been met.

Discharge Policy - Section 1-04.A of the Vermont Water Quality Standards, new discharges of wastes may be allowed only when the criteria in that section are met. These include:

1. The proposed discharge is in conformance with all applicable provisions of these rules including classification of the receiving waters adopted by the Board as set forth in Chapter 4 of these rules.
2. There is neither an alternative method of waste disposal, nor an alternative location for waste disposal, that would have a lesser impact on water quality including the quality of groundwater, or if there is such an alternative method or location, it would clearly unreasonable to require its use.
3. The design and operation of any waste treatment or disposal facility is adequate and sufficiently reliable to ensure the full support of uses and to ensure compliance with these rules and with all applicable state and federal treatment requirements and effluent limitations.
4. Except as provided for in 10 V.S.A. 1259(d) and (f), the discharge of wastes other than nonpolluting wastes and stormwater is prohibited in Class A waters regardless of the degree of treatment provided.
5. Except as provided for in 10 V.S.A. 1259, the discharge of wastes that, prior to treatment, contained organisms pathogenic to human beings is prohibited.
6. The receiving waters will have sufficient assimilative capacity to accommodate the proposed discharge.
7. Assimilative capacity has been allocated to the proposed discharge consistent with the classification set forth in Chapter 4 of these rules.
8. The discharge of wastes to the thermocline or hypolimnion of any lake in manner that may prevent full support of uses is prohibited.
9. The discharge of sewage into Class B waters shall not pose more than a negligible risk public health. Compliance with this criterion shall include as assessment of both the level and reliability of treatment achieved and the impact of the discharge on the water quality of the receiving waters.

It has been determined that these criteria have been met. Specifically: 1. the discharge will conform with applicable provisions and classification; 2. Due to the design of the facility and site limitations, there is not a reasonable alternative for disposal; 3. Temperature is the only pollutant expected to be present and will not result in a measurable change in the temperature of the receiving water (i.e. worst case of maximum

daily flows from all outfalls at the same time could increase the temperature by 0.2°F); 4. the discharge is not to a Class A water; 5. the discharge, prior to treatment, does not contain organisms pathogenic to humans; 6. and 7. adequate assimilative capacity exists; 8. the discharge is not to a lake; 9. the discharge does not contain sewage.

V. Procedures for Formulation of Final Determinations

The public comment period for receiving comments on this draft permit is from December 31, 2012 through January 30, 2013 during which time interested persons may submit their written views on the draft permit. All written comments received by 4:30 PM on January 30, 2013 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
Watershed Management Division – Main 2
1 National Life Drive
Montpelier, VT 05620-3522

Comments may also be faxed to: 802-828-1544 or submitted by e-mail using the e-mail comment provisions included at <http://www.watershedmanagement.vt.gov/>

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 proposed 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.



Vermont Department of Environmental Conservation

Watershed Management Division

1 National Life Drive, Main-2

Montpelier VT 05620-3522

Agency of Natural Resources

[phone] 802-490-6182

[fax] 802-828-1544

December 27, 2012

Ms Paulette Bocash, Town Clerk
Town of Sheldon
PO Box 66
Sheldon, VT 05483

Dear Ms Bocash:

Enclosed is a copy of a public notice regarding the public comment period for the issuance of a **draft discharge permit to authorizing the discharge of non-contact cooling water from a hydroelectric facility**. Please post in a public place for disseminating this information to the local officials and residents. We are also sending copies of this notice to other local officials and interested persons who have asked to be included on our mailing list.

Sincerely,

A handwritten signature in black ink that reads "Ernest F. Kelley".

Ernest F Kelley, Manager
Wastewater Programs

Enclosures

AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
1 NATIONAL LIFE DRIVE – MAIN 2
MONTPELIER, VERMONT 05620-3522

NOTICE: DRAFT DISCHARGE PERMIT

PUBLIC NOTICE NUMBER: 3-1550

PUBLIC COMMENT PERIOD: December 31, 2012 - January 30, 2013

PERMITTEE INFORMATION

PERMITTEE NAME: Missisquoi Associates

PERMITTEE ADDRESS: One Tech Drive – Suite 220
Andover, MA 01810

PERMIT NUMBER: 3-1550

PROJECT ID NUMBER: EJ06-0367

DISCHARGE INFORMATION

NATURE: Non-contact cooling water from a hydroelectric facility

VOLUME: 0.245 MGD, monthly average; 0.490 MGD, daily maximum

RECEIVING WATER: Missisquoi River

EXPIRATION DATE: December 30, 2017

DESCRIPTION: This is a draft discharge permit proposed for issuance to Missisquoi Associates for a discharge of non-contact cooling water from the Missisquoi Associates facility located at 121 Heather Lane, Sheldon Springs, Vermont to the Missisquoi River. This is a new permit.

TENTATIVE DETERMINATIONS

Tentative determinations regarding effluent limitations and other conditions to be imposed on the pending Vermont permit have been made by the State of Vermont Agency of Natural Resources (VANR). The limitations imposed will assure that the Vermont Water Quality Standards and applicable provisions of the Federal Clean Water Act, PL 92-500, as amended, will be met.

FURTHER INFORMATION

The complete application, proposed permit, and other information are on file and may be inspected by appointment at 1 National Life Drive – Main 2, Montpelier, Vermont. Copies, obtained by calling 802-490-6182, will be made at a cost based upon the current Secretary of State Official Fee Schedule for Copying Public Records from 7:45 a.m. to 4:30 p.m., Monday through Friday. The draft permit and fact sheet may also be viewed on the Division's website at <http://www.watershedmanagement.vt.gov/>

PUBLIC COMMENTS/PUBLIC HEARINGS

Written public comments on the proposed permit are invited and must be received on or before the close of business day (4:30 pm) **January 30, 2013** to the Agency of Natural Resources, Department of Environmental Conservation, Watershed Management Division, 1 National Life Drive – Main 2, Vermont 05620-3522. Comments may also be submitted by e-mail using the e-mail comment provisions included at <http://www.watershedmanagement.vt.gov/>
All comments received by the above date will be considered in formulation of the final determinations.

During the notice period, any person may submit a written request to this office for a public hearing to consider the proposed permit. The request must state the interest of the party filing such request and the reasons why a hearing is warranted. A hearing will be held if there is a significant public interest (including the filing of requests or petitions for such hearing) in holding such a hearing.

FINAL ACTION/RIGHTS TO APPEAL TO THE ENVIRONMENTAL COURT

At the conclusion of the public notice period and after consideration of additional information received during the public notice period, the VANR will make a final determination to issue or to deny the permit. Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision must be filed with the clerk of the Environmental Court within 30 days of the date of the decision. The appellant must attach to the Notice of Appeal, the entry fee of \$250.00, payable to the state of Vermont.

The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Court; and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and the description of the property, project or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal.

The appellant must also serve a copy of the Notice of Appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings.

For further information, see the Vermont Rules for Environmental Court Proceedings, available on line at www.vermontjudiciary.org. The address for the Environmental Court is: 2418 Airport Road, Suite 1, Barre, VT 05641-8701 (Tel. 802-828-1660).

David K Mears, Commissioner
Department of Environmental Conservation