

**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.: 3-1324

PIN: SJ95-0114

NPDES No.: VT0020893

DISCHARGE PERMIT

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

Ryegate Associates
247 Weesner Drive
East Ryegate, VT 05042

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

Weesner Drive
East Ryegate, Vermont

to the Connecticut 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 April 1, 2018

This permit and the authorization to discharge shall expire on June 30, 2020.

State of Vermont
Agency of Natural Resources

Emily Boedecker, Commissioner
Department of Environmental Conservation

By: 

Date: March 29, 2018

Jessica Bulova, Wastewater Section Supervisor
Watershed Management Division

I. SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the term of this permit, the Permittee is authorized to discharge from outfall serial number S/N 001: Process wastewater (cooling tower blowdown, reverse osmosis regeneration, demineralization regenerant, filter backwash, miscellaneous cooling waters and floor drains). 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		65,000 gpd	Continuous	Daily total
Flow ⁽⁵⁾		130,000 gpd		
Total Suspended Solids ⁽¹⁾	30 mg/l ^(2,3)	100 mg/l	1 x month	24-hour composite
Oil & Grease	15 mg/l	20 mg/l	1 x month	Grab
Turbidity ⁽¹⁾		Monitor only (NTU)	1 x month	24-hour composite
Temperature (May through Sept)		90° F	1 x week	Grab
Temperature (Oct through April)		90° F	1 x month	Grab
Total Metals ⁽⁴⁾		Monitor only (mg/l)	Annually	24-hour composite
pH		6.5 to 8.5 SU	daily	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken prior to combining with Discharge S/N 002.

- (1) Samples of Total Suspended Solids and Turbidity shall be collected during normal R.O. regenerant operations or during filter backwashing if the filters are backwashed during that month.

- (2) At the permittee's choice this effluent limitation may be a "Net Limitation". The net limitation value shall be determined by subtracting the intake water sample concentration from the effluent water sample concentration. The difference cannot be greater than 30 mg/l, monthly average.

Intake (source water) Total Suspended Solids sampling shall be conducted to account for the detention time in the system based on the current effluent flows. If the permittee fails to collect and analyze a valid Total Suspended Solids sample of the source water, then the "Net Limitation" cannot be evoked.

If the permittee chooses to report net effluent limitations, the intake water sample results shall also be submitted on the Discharge Monitoring Report (DMR) and the sampling indicated on the DMR.

- (3) If the "Net" Total Suspended Solids is result is greater than 30 mg/l, then at a minimum, the permittee shall collect and analyze additional samples for "Net" Total Suspended Solids.

- (4) The Total Metals sample shall be collected in September and analyzed for Total Cadmium, Total Copper, Total Iron, Total Lead, Total Nickel, and Total Zinc. Each metal concentration shall be reported separately.

- (5) **The daily maximum flow of 130,000 gpd is authorized during maintenance activities from April 2, 2018 through April 3, 2018 only.**

- 1.^{cont.} From July 1, 2015 and lasting through June 30, 2020, the permittee is authorized to discharge from outfall serial number **S/N 001**: Process wastewater (cooling tower blowdown, reverse osmosis regenerant, demineralization regenerant, filter backwash, miscellaneous cooling water and floor drains) from a biomass (wood) fired electrical power plant. Such discharges shall be limited and monitored by the permittee as specified below:

For a Discharge of not more than 2 hours in a day

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	2 Hour Average	Instantaneous Maximum	Measurement Frequency	Sample Type
Free Available Chlorine ⁽¹⁾	0.2 mg/l	0.5 mg/l	daily	grab
Total Residual Chlorine ⁽¹⁾		1.0 mg/	daily	grab
Free Available Oxidants ⁽¹⁾	0.1 mg/	0.25 mg/l	daily	grab
Total Residual Oxidants ⁽¹⁾		0.5 mg/l	daily	grab

Samples taken in compliance with the monitoring requirements specified above shall be taken prior to combining with Discharge S/N 002. For this requirement, the discharge valve shall not be opened for more than 2 hours per day.

- ⁽¹⁾ Samples for Free Available Chlorine, Free Available Oxidants (Bromine), Total Residual Chlorine, and Total Residual Oxidants (Bromine) shall be collected only during periods when the discharge of chlorinated or brominated cooling water is occurring.

For Continuous Discharges (more than 2 hours in a day)

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Monthly Average	Instantaneous Maximum	Measurement Frequency	Sample Type
Free Available Chlorine ⁽¹⁾		0.0 mg/l	daily	grab
Total Residual Chlorine ⁽¹⁾		0.0 mg/	daily	grab
Free Available Oxidants ⁽¹⁾		0.0 mg/l	daily	grab
Total Residual Oxidants ⁽¹⁾		0.0 mg/l	daily	grab

Samples taken in compliance with the monitoring requirements specified above shall be taken prior to combining with Discharge S/N 002. For this requirement, the discharge valve is opened for more than 2 hours per day.

- ⁽¹⁾ Samples for Free Available Chlorine, Free Available Oxidants (Bromine), Total Residual Chlorine, and Total Residual Oxidants (Bromine) shall be collected only during periods when the discharge of chlorinated or brominated cooling water is occurring.
- ⁽²⁾ Neither Free Available Chlorine, Free Available Oxidants (Bromine), Total Residual Chlorine, and Total Residual Oxidants (Bromine) shall be discharged for more than 2 hours in a day unless the permittee can demonstrate to the Agency that the unit in question cannot operate at or below this level of chlorination or bromination. **If these residuals are removed by dechlorination or debromination, then a continuous discharge is allowed.**

2. From the period of July 1, 2015 and lasting through June 30, 2020, the permittee is authorized to discharge from outfall serial number **S/N 002**: Stormwater runoff from the wood chip storage area. 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		as naturally occurs	none	none
Biochemical Oxygen Demand		monitor only (mg/l)	1 x month (seasonal) ⁽¹⁾	grab ⁽¹⁾
Total Suspended Solids		monitor only (mg/l)	1 x month (seasonal) ⁽¹⁾	grab ⁽¹⁾
Turbidity		monitor only (NTU)	1 x month (seasonal) ⁽¹⁾	grab ⁽¹⁾
pH		monitor only (SU)	1 x month (seasonal) ⁽¹⁾	grab ⁽¹⁾

Samples taken in compliance with the monitoring requirements specified above shall be taken prior to combining with Discharge S/N 001.

- ⁽¹⁾ A grab sample shall be collected each month during the period of **May 1st through October 31st**. The sample shall be collected during the first 30 minutes of discharge after a rainstorm has started. If a stormwater discharge does not occur during a month (reporting period), then the monthly discharge monitoring report shall indicate “no discharge” for that month.

3. Special Conditions:

- a. The permittee is limited to using the chemicals that are similar in composition, concentration, and toxicity to those identified in the permit application (received December 15, 2014). An increase in the dosage rate or a substantial change in the chemicals used shall be reviewed by the Agency (Wastewater Management Program) to assure that there is no adverse impact to the receiving water.
1. A change in chemical vendors shall require that the permittee, at a minimum, submit the appropriate MSDS sheets to the Agency (Wastewater Management Division)
 2. A substantial change in chemical usage may require the permittee to conduct a priority pollutant analysis of the discharge for some or all of the pollutants listed in Appendix A of 40 CFR Part 423 or conduct Whole Effluent Toxicity (WET) Testing on the discharge.

A substantial change in chemical usage shall be defined as chemicals that are not similar in composition, concentration, or toxicity to those identified in the application.

- b. The permittee shall maintain a current spill prevention and contingency plan for the facility (current version date March 2011). The plan shall be reviewed periodically and updated as necessary to reflect changes in the facility’s design or operations. If the plan is updated, the revised plan shall be submitted to the Agency (Wastewater Management Program). The plan shall define management, operations, and procedures to properly contain and dispose of any

unusable hazardous materials that may be generated by this facility's processes or as a result of a spill. The plan shall minimize the potential for spills and prevent the discharge of these materials to floor drains, the cooling tower, or waters of the State.

- c. The facility shall maintain and utilize a Chip Management Plan. At a minimum the Chip Management Plan shall include the following:
1. The chip pile shall be built on sloped asphalt or concrete.
 2. The chip pile shall be rotated at least every 120 days or as necessary in order to prevent significant decomposition, acid formation, or spontaneous combustion.
 3. The storage area shall be kept free of oil or other chemical residues, litter and other miscellaneous refuse.

The Chip Management Plan shall be updated as necessary and the updated version shall be submitted to the Watershed Management Division.

- d. There shall be no discharge of scum, foam, or floating solids other than in trace amounts
- e. This discharge shall not cause or contribute to violations of Water Quality Standards in the receiving water.
- f. This discharge shall not cause a visible discoloration of the receiving waters.
- g. The discharge of polychlorinated biphenyl compounds is prohibited.
- h. Chlorine and bromine-based compounds may be used as biocides. No other chemically based biocides or slimicides may be used without review and approval of the Agency.

B. 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 **December 31, 2019**.

C. OPERATING FEES

This discharge is subject to operating fees as required by 3 V.S.A. § 2822.

D. TOXICITY TESTING

The permittee shall conduct and submit the results of one, two-species (Pimephales promelas) and (Ceriodaphnia dubia), 48-hour acute Whole Effluent Toxicity (WET) test to the Agency as specified below.

1. In **August or September 2019**, the Permittee shall conduct a WET test on S/N 001 and the results shall be submitted to the Agency by **November 15, 2019**.
2. Based upon the results of these tests or any other toxicity tests conducted on this discharge, this permit may be amended to require additional Whole Effluent Toxicity testing, or a Toxicity Reduction Evaluation be conducted.
3. The whole effluent toxicity tests shall be conducted according to the procedures and guidelines specified in: *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (most recent edition)*, USEPA document.

E. MONITORING AND REPORTING

1. Sampling and Analysis

The sampling, preservation, handling, and analytical methods used shall conform to the test procedures published in the 40 C.F.R. Part 136.

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 on a Discharge Monitoring Report form WR-43 (WR-43) or other reporting form approved by the Secretary. Reports are due on the 15th day of each month, beginning with the month 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 and the authorization is made in writing and submitted to the Secretary;
- 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 or measurements;
- b. The individual(s) who perform the sampling or measurements;
- c. The dates and times the analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques and methods used including sample collection handling and preservation techniques;
- f. The results of such analyses.
- g. The records of monitoring activities and results, including all instrumentation and calibration and maintenance records;
- h. 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) on the Vermont reporting form WR-43 or other forms approved by the Secretary.

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 required in the Discharge Monitoring Report form WR-43. 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 211. Any anticipated facility alterations or expansions or process modifications which will result in new, different, or increased discharges of any 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 Secretary of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Noncompliance Notification

The Permittee shall give advance notice to the Secretary of any planned changes in the facility or activity which may result in noncompliance with permit requirements.

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, 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. any unanticipated bypass or upset which exceeds any effluent limitation in the permit;
- d. violation of a maximum day discharge limitation for any of the pollutants listed by the Secretary in this permit; or
- e. 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 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 and control facilities and systems (and related appurtenances) installed or used by the Permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the Permittee only when the operation is necessary to achieve compliance with the 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.

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 demonstrate the accuracy of the flow measurement device monthly and report the results on the monthly report forms. The acceptable limit of error is $\pm 10\%$.

The Permittee shall analyze any additional samples as may be required by the Secretary to ensure analytical quality control.

5. Bypass

The bypass of facilities (including pump stations) is prohibited, except where authorized under the terms and conditions of an Emergency Pollution Permit issued pursuant to 10 V.S.A. § 1268. It shall not be a defense for the Permittee in an enforcement action that it

would have been necessary to halt or reduce the activity in order to maintain compliance with the conditions of this permit.

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, all calibration and maintenance of instrumentation records and all original chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a minimum of three years, and shall be submitted to the Secretary 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 accordance 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., § 1268. The Permittee shall notify the Secretary of the emergency situation by the next working day.

10 V.S.A. § 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 willful or intended acts or omissions of the applicant.”

Application shall be made to the Secretary 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 where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. to have access to and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;
- c. to inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

- d. to sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

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 **at least 30 days in advance of the proposed transfer date**. The notice to the Secretary shall include a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them. 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.”

Claims for confidentiality for the following information will be denied:

- a. The name and address of any permit applicant or permittee;
- b. Permit applications, permits, and effluent data; and
- c. Information required by application forms, including information submitted on the forms themselves and any attachments used to supply information required by the forms.

4. Permit Modification, Suspension, and Revocation

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 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.

The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance shall not stay any permit condition.

The Permittee shall provide to the Secretary, within a reasonable time, any information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also furnish to the Secretary upon request, copies of records required to be kept by this permit.

5. Toxic Effluent Standards

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 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 this permit, then this permit shall be modified or revoked and reissued in accordance with the toxic effluent standard or prohibition and the Permittee so notified

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” (Section II.A.5.), “Power Failure” (Section II.A.10.), and “Emergency Pollution Permits” (Section II.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. Other Information

If the Permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Secretary, it shall promptly submit such facts or information.

11. 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.

12. 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 Regulation, and Section 402 of the Clean Water Act, as amended.

III. ADDITIONAL CONDITIONS

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:

Agency – The Agency of Natural Resources

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.

Bypass – The intentional diversion of waste streams from any portion of a treatment facility.

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.

Department – The Vermont Department of Environmental Conservation.

Discharge – Any wastes, directly or indirectly, that are placed, deposited or emitted into waters of the state.

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

Incompatible Substance - 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 the works or on water quality. This includes all pollutants required to be regulated under the 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

Waste – Effluent, sewage or any substance or material, liquid, gaseous, solid or radioactive, including heated liquids, whether or not harmful or deleterious to waters.

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.

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DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
1 NATIONAL LIFE DRIVE
MONTPELIER, VERMONT 05620-3522**

**FACT SHEET
March 2018**

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

PROJECT ID NO.: SJ95-0114

NPDES NO.: VT0020893

PERMIT NO.: 3-1324

NAME AND ADDRESS OF APPLICANT:

Ryegate Associates
247 Weesner Drive
East Ryegate, VT 05042

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Ryegate Power Station
Weesner Drive
East Ryegate, VT

RECEIVING WATERS AND CLASSIFICATION: Connecticut River: Class B. Class B waters are suitable for swimming and other forms of water-based recreation, irrigation of crops and other agricultural uses without treatment; good aesthetic value; aquatic biota and wildlife sustained by high quality aquatic habitat; and acceptable for 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 electrical power by burning wood.

The complete application, draft permit, and other information are on file and may be inspected at the VTDEC, Watershed Management Division, Montpelier, VT. 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.

II. Description of Discharge

This permit authorizes the discharge of 65,000 GPD, daily maximum, of cooling water and other 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: Pages 2, 3 and 4

Monitoring Requirements: Pages 2, 3, 4 and 6

IV. Permit Basis and Explanation of Effluent Limitation Derivation

History & Summary

Ryegate Associates owns and operates the "East Ryegate Power Station" a 20 MW wood burning electric generating facility. The facility uses sawmill residue and tree chips as fuel. These materials are delivered and stored onsite prior to use. Water is pumped from the Connecticut River and from wells to provide cooling and process waters at the facility.

Wastewater is generated at the facility from the following processes:

Cooling Tower and Circulating Water:

River water is used to cool components in the facility such as the main condenser, turbines, feed pump bearings, etc. Sulfuric acid is added for pH control at the intake structure. Sodium hypochlorite, bromine-based compounds and other biocides are added to this water. The water is recirculated through the cooling system into a 12,000-gallon wastewater tank, combined with other waste streams and discharged to the Connecticut river.

Boiler Blowdown Water:

Continuous and intermittent boiler blowdown is generated at this facility. The boiler blowdown is combined with the cooling tower water and is conveyed to the 12,000-gallon wastewater tank and is then discharged to the receiving water via S/N 001.

Demineralizer Regenerate and Reverse Osmosis Wastewaters:

Wastewater is generated from the demineralizer and reverse osmosis treatment process. Water is extracted from a well and is treated through a water softener, a demineralization process, and a reverse osmosis process prior to being used in the facility. The water softener brine, the reverse osmosis concentrate and the wastewater from the regeneration process of the demineralization process are transferred to the 12,000-gallon wastewater storage tank and then discharged via S/N 001.

Floor Drains:

Floor drains collect miscellaneous wastewaters in the facility. The floor drain system is connected to the collections system for Discharge S/N 001 at various locations in the facility. All the floor drains are piped to the 12,000-gallon wastewater storage tank and then discharged via S/N 001.

Chip Storage Pile Runoff:

Wood chips are stored at the facility in covered silos and an outdoor storage pile. Stormwater from the storage pile is discharged via a pipe system (S/N 002) which combines with the primary outfall (S/N 001) prior to entering the Connecticut River.

After completing the review of the renewal application and monitoring data, the Department has made a determination to renew the discharge permit for this discharge.

Following is a discussion of the specific factors considered in the renewal of this permit.

Receiving Water

The receiving water for this discharge is the Connecticut River. The reach of river that receives the discharge is a Class B water and has been designated as a Cold-Water Fishery. The river has a 7Q10 flow of 608 cfs at the point of discharge. The instream wastewater concentration (IWC) for this discharge at 7Q10 flows is 0.0002.

Effluent Limitations

40 CFR Part 423 contains effluent guidelines for steam electric power plants but are specific for facilities using fossil fuels (oil, gas, and coal) and nuclear power. However, since this discharge is similar to discharges emitted from those types of facilities, the Agency has consulted these effluent guidelines and the Vermont Water Quality Standards in deriving the effluent limitations in this permit.

Discharge Point S/N 001

Flow

The permit contains a flow limitation of 65,000 GPD, daily maximum. This limitation is based on the capacity of the cooling system and is unchanged from the previous permit. Continuous flow monitoring is required.

The daily maximum flow of 130,000 gpd has been authorized during maintenance activities from April 2, 2018 through April 3, 2018 only. An analysis of the justification for this emergency permit modification is included in the section below titled “Emergency Permit Modification.”

Total Suspended Solids (TSS)

The permit contains a TSS limitation of 100 mg/l, daily maximum and 30 mg/l, monthly average. This limitation is based on 40 CFR Part 423. This limitation is unchanged from the previous permit. A review of the monitoring data collected in the past years indicates that this limitation is being met. TSS monitoring is once per month and must be collected when the R.O. regenerant and/or filter backwash discharge is occurring.

Oil and Grease

The permit contains an Oil and Grease limitation of 20 mg/l, daily maximum and 15 mg/l, monthly average. This limitation is based on 40 CFR Part 423. This limitation is unchanged from the previous permit. A review of the monitoring data collected in the past years indicates that this limitation is being met. Oil and grease monitoring is required once per month.

Turbidity

The permit contains a monitor only requirement for Turbidity. This monitoring provide confirmation that the requirements of the Vermont Water Quality Standards are met and is unchanged from the previous permit. A review of the monitoring data collected in the past years indicates that compliance with the Standards is being achieved. Turbidity monitoring is required once per month and samples must be collected when the R.O. regenerant and/or filter backwash discharge is occurring.

Temperature

The permit contains an effluent temperature limitation of 90°F, daily maximum, and is unchanged

from the current permit. This limitation will meet the requirements of the Vermont Water Quality Standards, since at the permitted flow the discharge at 7Q10 river flows cannot raise the in-stream temperature by more than 0.01°F. Temperature monitoring is required once per week from May through September and once per month from October through April.

Total Metals

The permit contains a monitor only requirement for Total Metals (Total Cadmium, Total Copper, Total Iron, Total Lead, Total Nickel, and Total Zinc). This monitoring requirement is based on 40 CFR Part 423 and is unchanged from the previous permit. Sampling is required twice per year (biannually).

Chlorine

For discharges lasting not more than 2 hours per day, the permit contains a Free Available Chlorine limitation of 0.2 mg/1, 2-Hour Average, and 0.5 mg/1, instantaneous maximum, and a Total Residual Chlorine limitation of 1.0 mg/1, instantaneous maximum. These limitations are based on 40 CFR Part 423 and are unchanged from the previous permit.

For discharges lasting more than 2 hours per day, the permit contains a Free Available Chlorine limitation of 0.0 mg/1, instantaneous maximum, and a Total Residual Chlorine limitation of 0.0 mg/1, instantaneous maximum. These limitations are based on 40 CFR Part 423 and are unchanged from the previous permit.

Oxidants (i.e. Bromine)

For discharges lasting not more than 2 hours per day, the permit contains a Free Available Oxidants limitation of 0.1 mg/1, 2-Hour Average, and 0.25 mg/1, instantaneous maximum, and a Total Residual Oxidants limitation of 0.5 mg/1, instantaneous maximum. These limitations are based on 40 CFR Part 423 and are unchanged from the previous permit.

For discharges lasting more than 2 hours per day, the permit contains a Free Available Oxidants limitation of 0.0 mg/1, instantaneous maximum, and a Total Residual Oxidant limitation of 0.0 mg/1, instantaneous maximum. These limitations are based on 40 CFR Part 423 and are unchanged from the previous 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 daily. This sampling requirement is unchanged from the current permit.

Whole Effluent Toxicity Testing (WET testing)

WET testing conducted on this discharge in 2009 and in 2014, indicated that this discharge does not have the potential to cause or contribute to an instream toxic excursion. In order to confirm these findings at the time of the next permit renewal, the permit requires a two-species acute WET test be conducted on this discharge in August or September 2019. The results of this WET testing must be submitted to the Agency by no later than November 15, 2019 so they may be reviewed in conjunction with the permit renewal application.

Discharge Point S/N 002: Chip Pile Runoff

Total Suspended Solids, Turbidity, and pH monitoring is required on a seasonal basis (May 1st through October 31st). Sampling is required once per month.

Special Conditions

Condition I.3.a. limits the use of chemicals in the facility to those that are similar in composition, concentration, and toxicity to the chemicals identified in the discharge permit renewal application.

Condition I.3.b. requires a current spill prevention and contingency plan for the facility be maintained.

Condition I.3.c. requires a chip management plan to be implemented to prevent the decomposition of the chips and the formation of potentially toxic decomposition products.

Condition I.3.h. restricts the permittee to using either chlorine or bromine-based compounds as biocides unless the alternative compound is reviewed and approved by the Agency.

Emergency Permit Modification

On March 12, 2018, the Permittee notified the Agency that during maintenance activities from April 2, 2018 through April 3, 2018, the facility will need to exceed its daily maximum effluent flow and discharge time limitations. On March 16, 2018, the Agency received the Emergency Pollution Permit application from the Permittee. Pursuant to 10 V.S.A. § 1268, Vermont Water Pollution Control Permit Regulations Section 13.7, and Condition II.A.9 of the permit, the Secretary may modify a discharge permit if 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 willful or intended acts or omissions of the applicant.**

The Permittee is conducting planned maintenance to both of its cooling tower cells. During the maintenance all water must be removed from the towers. The Permittee has certified that the requested permit modification meets the foregoing criteria and provided the following: The alternative means for discharging this water would be through a spray system that is typically used as a fire suppressant for wood piles. This is not a workable solution during freezing temperatures. There are no other reasonable alternative means of disposing the waste other than by discharging it into waters of the state; the permit modification will allow the Permittee sufficient time to upgrade the cooling towers and replace structural lumber; without the modification, the Permittee would not be able to perform the needed maintenance and perform it safely; the maintenance is not due to willful or intended acts or omissions of the applicant; and the discharge is for a two-day period only, will be tested prior to discharge, and will comply with all normal permit effluent limitations besides flow.

Based upon the information provided by the Permittee, the Secretary finds: there is no reasonable alternative means of disposing the waste during the duration of the maintenance

activities; denying the permit modification would result in an extreme hardship on the Permittee because the Permittee would not be able to conduct its needed and planned maintenance; granting the modification will result in some public benefit by ensuring the needed maintenance is performed and done so safely; the discharge will not be unreasonably harmful to the quality of the receiving waters because the discharge will comply with the normal permit effluent limitations besides flow and will be of a very limited duration; and the cause of the needed modification is not due to willful or intended acts or omissions, but rather is required to conduct planned maintenance.

VI. Procedures for Formulation of Final Determinations

The public comment period for receiving comments on this draft permit is from March 9, 2015 through 4:30 PM, April 9, 2015 during which time interested persons may submit their written views on the draft permit.

All written comments received during the comment period 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 provisions included at <http://www.anr.state.vt.us/dec/waterq/ww/htm/notices.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 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.