



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

June 2, 2016

Mr. William Parker
ReEnergy Livermore Falls, LLC
P.O. Box 430
Fort Fairfield, ME. 04742
wparker@reenergyholdings.com

*Sent via electronic mail
Delivery confirmation requested*

RE: *Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0023710
Maine Waste Discharge License (WDL) Application #W007705-5S-I-R
Proposed Draft MEPDES Permit - Renewal*

Dear Mr. Parker:

Attached is a proposed draft MEPDES permit and Maine WDL which the Department proposes to issue for your facility as a final document after opportunity for your review and comment. By transmittal of this letter, you are provided with an opportunity to comment on the proposed draft permit and its special and standard conditions. If it contains errors or does not accurately reflect present or proposed conditions, please respond to this Department so that changes can be considered.

By copy of this letter, the Department is requesting comments on the proposed draft permit from various state and federal agencies and from any other parties who have notified the Department of their interest in this matter.

The comment period begins on June 2, 2016 and ends on July 5, 2016. All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business Tuesday, July 5, 2016. Failure to submit comments in a timely fashion will result in the proposed draft/license permit document being issued as drafted.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

Comments in writing should be submitted to my attention at the following address:

Maine Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, ME 04333-0017
Cindy.L.Dionne@maine.gov

If you have any questions regarding the matter, please feel free to contact me.

Sincerely,



Cindy L. Dionne
Division of Water Quality Management
Bureau of Water Quality
ph: 207-557-5950

Enc.

cc: Barry Mower, DEP
Pamela Parker, DEP
Beth DeHaas, DEP
Lori Mitchell, DEP
Laura Crossley, DEP
Sean Mahoney, CLF
Environmental Review, DMR
David Webster, USEPA
David Pincumbe, USEPA
Alex Rosenberg, USEPA
Olga Vergara, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Environmental Review, IFW
Laury Zicari, USFWS



DEPARTMENT ORDER

IN THE MATTER OF

REENERGY LIVERMORE FALLS, LLC)	MAINE POLLUTANT DISCHARGE
LIVERMORE FALLS)	ELIMINATION SYSTEM PERMIT
ANDROSCOGGIN COUNTY, MAINE		
ELECTRICAL GENERATING STATION)	AND
ME0023710)	WASTE DISCHARGE LICENSE
W007705-5S-I-R)	RENEWAL
APPROVAL		

In compliance with the applicable provisions of the *Pollution Control*, 38 M.R.S. §§ 411 – 424-B, *Water Classification Program*, 38 M.R.S. §§ 464 – 470 and *Federal Water Pollution Control Act*, Title 33 U.S.C. § 1251, *et seq.*, and applicable rules of the Department of Environmental Protection (Department), the Department has considered the application of REENERGY LIVERMORE FALLS, LLC (ReEnergy), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On March 15, 2016, the Department accepted as complete for processing an application from ReEnergy for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0023710/ Maine Waste Discharge License (WDL) #W007705-5S-F-R, which was issued by the Department on September 12, 2011 for a five-year term. The 9/12/11 permit authorized the monthly average discharge of 138,000 gallons per day (GPD) and a daily maximum of 175,000 GPD of cooling tower blowdown, boiler blowdown, demineralization system ion exchange regeneration water, storm water, cooling water, and cooling tower mist from its biomass electrical generating station to the Androscoggin River, Class C, in Livermore Falls, Maine.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the previous permitting action except that this permitting action:

1. Incorporates monitoring and reporting requirements for the interim mercury limitations established by the Department for this facility pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and *Waste discharge licenses*, 38 M.R.S. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 C.M.R. 519 (last amended October 6, 2001);
2. Reduces the monitoring frequency for zinc and chromium from 1/Month to 1/Quarter;

PERMIT SUMMARY (cont'd)

3. Eliminates Special Condition A. 2. *Effluent Limitations and Monitoring Requirements* regarding the discharge of stormwater and associated conditions;
4. Corrects a rounding error for the daily maximum mass limit for total chromium (from 0.28 lbs./day to 0.29 lbs./day);
5. Establishes a 1/Year monitoring frequency for temperature during the months of October through May, annually; and
6. Corrects the daily maximum oil & grease limit (15 mg/L) that was erroneously identified in the previous permit limitations table.

CONCLUSIONS

BASED on the findings in the attached and incorporated Fact Sheet dated June 2, 2016, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with State law.
3. The provisions of the State's antidegradation policy, *Classification of Maine waters*, 38 M.R.S. §464(4)(F), will be met, in that:
 - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
 - (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
 - (c) Where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
 - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
 - (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

CONCLUSIONS (cont'd)

4. The discharge will be subject to effluent limitations that require application of best practicable treatment as defined in *Conditions of licenses*, 38 M.R.S. § 414-A(1)(D).

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ACTION

THEREFORE, the Department APPROVES the above noted application of REENERGY LIVERMORE FALLS, LLC to discharge a monthly average discharge of 138,000 GPD and a daily maximum of 175,000 GPD of cooling tower blowdown, boiler blowdown, demineralization system ion exchange regeneration water, wood fuel storage leachate, storm water, cooling water, and cooling tower mist from its biomass electrical generating station to the Androscoggin River, Class C, in Livermore Falls, Maine, SUBJECT TO ALL APPLICABLE STANDARDS AND REGULATIONS AND THE FOLLOWING CONDITIONS:

1. *“Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits,”* revised July 1, 2002, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. This permit becomes effective upon the date of signature below and expires at midnight five (5) years after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. *Maine Administrative Procedure Act*, 5 M.R.S. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 C.M.R. 2(21)(A) (amended October 19, 2015).

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS ____ DAY OF _____ 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
PAUL MERCER, Commissioner

Date of initial receipt of application: March 15, 2016
Date of application acceptance: March 15, 2016

Date filed with Board of Environmental Protection _____

This Order prepared by Cindy L. Dionne, Bureau of Water Quality

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge cooling tower blowdown, wood fuel storage leachate, storm water, boiler blowdown, and demineralization system ion exchange regeneration waters from **Outfall #001E** to the Androscoggin River at Livermore Falls. Such discharges are limited and must be monitored by the permittee as specified below ⁽¹⁾:

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow [50050]	0.138 MGD [07]	0.175 MGD [07]	---	---	Continuous [99/99]	Meter [MT]
Temperature, °F [00011] (October 1 – May 31)	---	---	---	90°F [15]	1/Year [01/YR]	Grab [GR]
Temperature, °F [00011] (June 1 – September 30)	---	---	---	90°F [15]	1/Month [01/30]	Grab [GR]
Free Available Chlorine ⁽²⁾ [50064]	---	---	0.2 mg/L [19]	0.5 mg/L [19]	1/Month [01/30]	Grab [GR]
Total Suspended Solids ⁽³⁾ [00530]	34 lbs./day [26]	73 lbs./day [26]	30 mg/L [19]	50 mg/L [19]	2/Month [02/30]	Grab [GR]
Total Zinc [01092]	1.2 lbs./day [26]	1.4 lbs./day [26]	1.0 mg/L [19]	1.0 mg/L [19]	1/Quarter [01/90]	Grab [GR]
Oil & Grease [00552]	---	---	15 mg/L [19]	15 mg/L [19]	1/Month [01/30]	Grab [GR]
Total Chromium [01034]	0.23 lbs./day [26]	0.29 lbs./day [26]	0.20 mg/L [19]	0.20 mg/L [19]	1/Quarter [01/90]	Grab [GR]
pH ⁽⁴⁾ [00400]	The pH must be ≥ 6.0 and ≤ 9.0 SU at any time [12]				1/Month [01/30]	Grab [GR]
Mercury (Total) ⁽⁵⁾ [71900]	---	---	25.0 ng/L [3M]	37.5 ng/L [3M]	1/Year [01/YR]	Grab [GR]

The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports (DMRs).

Footnotes: See Pages 6 and 7 of this permit for applicable footnotes.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Outfall #001E

Sampling Location: Effluent sampling from Outfall #001E must be performed at a sampling station located in the raw water pumphouse building immediately prior to discharge to the river. The sample point is located after the final confluence of wastewater and is representative of the water conditions at the final outfall structure. Any change in sampling location must be approved by the Department in writing. (Note: Any required sampling of raw water (influent sampling) will be taken from the raw water makeup line to the cooling tower. The sample station is the spigot which is located off the raw water fill line just prior to the level control valve.

Footnotes:

1. **Sampling** – The permittee must conduct sampling and analysis in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis must be analyzed by a laboratory certified by the State of Maine's Department of Health and Human Services for wastewater. Samples that are sent to a POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 C.M.R. 263 (effective April 1, 2010). If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.
2. **Free available chlorine** – Pursuant to 40 CFR, Part 423.12(b)(8), neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available chlorine nor total residual chlorine at any time unless the utility can demonstrate to the Department that the units cannot operate at or below this level of chlorination.
3. **Total Suspended Solids (TSS)** – Effluent TSS results must be calculated using the formula provided in Special Condition E of this permit. Sampling must be done during 3 sampling events to gather 2 monthly influent/effluent TSS samples. The first sampling event will be for the collection of an influent sample only. After approximately 4 days of plant operations (the time required to turn over the circulation water system's 250,000 gallon capacity one time at a normal blowdown rate of 40 gpm or ~ 4.3 days), the first effluent sample and a second influent sample will be collected. After an additional 4 day period, the second effluent sample will be collected.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

4. **pH** – The pH of the discharge from all outfalls may be outside of the range of 6.0 - 9.0 standard units provided it is not more than 0.5 standard units outside of the background pH of the intake water for the facility or precipitation at the time of sampling or 0.5 standards units outside the limitation range of 6.0 -9.0 standard units. To determine compliance with this provision, the permittee must sample and document the ambient pH of the intake water or precipitation if a pH result of the discharge is reported outside of the range limitation of 6.0 - 9.0 standard units.
5. **Mercury** – The permittee must conduct all mercury monitoring required by this permit or required to determine compliance with interim limitations established pursuant to 06-096 C.M.R. 519 in accordance with the USEPA's "clean sampling techniques" found in USEPA Method 1669, *Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels*. All mercury analysis must be conducted in accordance with USEPA Method 1631, *Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry*. See **Attachment A** of this permit for mercury test results. Compliance with the monthly average limitation established in Special Condition A of this permit will be based on the cumulative arithmetic mean of all mercury tests results that were conducted utilizing sampling Methods 1669 and analysis Method 1631E on file with the Department for this facility.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The permittee must not discharge effluent that contains a visible oil sheen, foam or floating solids at any time which would impair the uses designated for the classification of the receiving waters.
2. The permittee must not discharge effluent that contains materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the uses designated for the classification of the receiving waters.
3. The permittee must not discharge effluent that causes visible discoloration or turbidity in the receiving waters or otherwise impairs the uses designated for the classification of the receiving waters.
4. The permittee must not discharge effluent that lowers the quality of any classified body of water below such classification, or lowers the existing quality of any body of water if the existing quality is higher than the classification.

SPECIAL CONDITIONS

C. METAL CLEANING WASTES

The chemical metal cleansing wastes generated when cleaning the heat recovery steam generator must not be discharged. This source must be transported off-site for proper disposal/treatment pursuant to all applicable federal, state, and local laws and regulations.

D. COOLING TOWER CLEANING WASTES

The cooling tower solids must be removed for drying either on-site or off-site followed by proper disposal off-site pursuant to all applicable federal, state, and local laws and regulations.

E. TOTAL SUSPENDED SOLIDS

Effluent TSS (mg/L) must be calculated using the following equation. Influent TSS (TSS_R) and Outfall TSS (TSS_O) samples must be collected and reported as provided under footnote (2) of Special Condition A.

$$TSS_O - TSS_R = TSS_E$$

Where TSS_O = Outflow TSS (mg/L)
 TSS_R = Influent TSS (mg/L) x 6
 TSS_E = Effluent TSS (mg/L)

Effluent Total Suspended Solids (lbs.) must be calculated using the formula:
 $TSS_E \times \text{Flow (MGD)} \times 8.34$.

The flow used in this calculation must be the total effluent flow on the day the effluent sample was collected.

F. NOTIFICATION REQUIREMENTS

1. Any substantial change (increase or decrease) in the volume or character of pollutants being introduced into the wastewater collection and treatment system by a source introducing pollutants into the system at the time of permit issuance.
2. For the purposes of this section, adequate notice must include information on:
 - (a) The quality and quantity of wastewater introduced to the wastewater collection and treatment system; and
 - (b) Any anticipated impact of the change in the quantity or quality of the wastewater to be discharged from the treatment system.

SPECIAL CONDITIONS

G. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on March 15, 2016; 2) the terms and conditions of this permit; and 3) only from Outfall #001E. Discharges of wastewater from any other point source are not authorized under this permit, and must be reported in accordance with Standard Condition D(1)(f), *Twenty-four hour reporting* of this permit.

H. 06-096 C.M.R. 530(2)(D)(4) STATEMENT FOR REDUCED/WAIVED TOXICS TESTING

By December 31 of each calendar year, the permittee must provide the Department with a certification describing any of the following that have occurred since the effective date of this permit [*ICIS Code 75305*]. See **Attachment C** of the Fact Sheet for an acceptable certification form to satisfy this Special Condition.

- a. Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
- b. Changes in the operation of the treatment works that may increase the toxicity of the discharge;
- c. Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge;

In addition, in the comments section of the certification form, the permittee must provide the Department with statements describing;

- d. Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge; and
- e. Increases in the type or volume of transported (hauled) wastes accepted by the facility. The Department may require that annual surveillance level testing be re-instated if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

SPECIAL CONDITIONS

I. MONITORING AND REPORTING

Monitoring results obtained during the previous month must be summarized for each month and reported on separate DMR forms provided by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to the Department's Regional Office such that the DMRs are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the DMR and all other reports required herein must be submitted to the Department-assigned inspector (unless otherwise specified by the Department) at the following address:

Department of Environmental Protection
Bureau of Water Quality
Division of Water Quality Management
17 State House Station
Augusta, Maine 04333

Alternatively, if the permittee submits an electronic DMR, the completed DMR must be electronically submitted to the Department by a facility authorized DMR Signatory not later than close of business on the **15th day of the month** following the completed reporting period. Hard copy documentation submitted in support of the DMR must be postmarked on or before the **thirteenth (13th) day of the month or hand-delivered** to the Department's Regional Office such that it is received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. Electronic documentation in support of the DMR must be submitted not later than close of business on the 15th day of the month following the completed reporting period.

J. REOPENING OF PERMIT FOR MODIFICATION

In accordance with 38 M.R.S. § 414-A(5) and upon evaluation of the test results required by the Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to: (1) include effluent limitations necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

SPECIAL CONDITIONS

K. SEVERABILITY

In the event that any provision or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit must remain in full force and effect, and must be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

A. GENERAL PROVISIONS

1. General compliance. All discharges shall be consistent with the terms and conditions of this permit; any changes in production capacity or process modifications which result in changes in the quantity or the characteristics of the discharge must be authorized by an additional license or by modifications of this permit; it shall be a violation of the terms and conditions of this permit to discharge any pollutant not identified and authorized herein or to discharge in excess of the rates or quantities authorized herein or to violate any other conditions of this permit.

2. Other materials. Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, may be discharged at the maximum frequency and maximum level identified in the application, provided:

- (a) They are not
 - (i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
 - (ii) Known to be hazardous or toxic by the licensee.
- (b) The discharge of such materials will not violate applicable water quality standards.

3. Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of State law and the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

- (a) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act, and 38 MRSA, §420 or Chapter 530.5 for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- (b) Any person who violates any provision of the laws administered by the Department, including without limitation, a violation of the terms of any order, rule license, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

4. Duty to provide information. The permittee shall furnish to the Department, within a reasonable time, any information which the Department 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 Department upon request, copies of records required to be kept by this permit.

5. Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. 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 does not stay any permit condition.

6. Reopener clause. The Department reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedule of compliance or other provisions which may be authorized under 38 MRSA, §414-A(5).

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

7. Oil and hazardous substances. 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 to which the permittee is or may be subject under section 311 of the Federal Clean Water Act; section 106 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; or 38 MRSA §§ 1301, et. seq.

8. Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Confidentiality of records. 38 MRSA §414(6) reads as follows. "Any records, reports or information obtained under this subchapter is available to the public, except that upon a showing satisfactory to the department by any person that any records, reports or information, or particular part or any record, report or information, other than the names and addresses of applicants, license applications, licenses, and effluent data, to which the department has access under this subchapter would, if made public, divulge methods or processes that are entitled to protection as trade secrets, these records, reports or information must be confidential and not available for public inspection or examination. Any records, reports or information may be disclosed to employees or authorized representatives of the State or the United States concerned with carrying out this subchapter or any applicable federal law, and to any party to a hearing held under this section on terms the commissioner may prescribe in order to protect these confidential records, reports and information, as long as this disclosure is material and relevant to any issue under consideration by the department."

10. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

11. Other laws. The issuance of this permit does not authorize any injury to persons or property or invasion of other property rights, nor does it relieve the permittee of its obligation to comply with other applicable Federal, State or local laws and regulations.

12. Inspection and entry. The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), upon presentation of credentials and other documents as may be required by law, to:

- (a) 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) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) 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.

B. OPERATION AND MAINTENANCE OF FACILITIES

1. General facility requirements.

- (a) The permittee shall collect all waste flows designated by the Department as requiring treatment and discharge them into an approved waste treatment facility in such a manner as to

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

- maximize removal of pollutants unless authorization to the contrary is obtained from the Department.
- (b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.
 - (c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.
 - (d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.
 - (e) The permittee shall install flow measuring facilities of a design approved by the Department.
 - (f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

2. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the 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 a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

3. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Bypasses.

- (a) Definitions.
 - (i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
 - (ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.
- (c) Notice.
 - (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

- (ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).
- (d) Prohibition of bypass.
 - (i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The permittee submitted notices as required under paragraph (c) of this section.
 - (ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

- (a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (i) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (ii) The permitted facility was at the time being properly operated; and
 - (iii) The permittee submitted notice of the upset as required in paragraph D(1)(f), below. (24 hour notice).
 - (iv) The permittee complied with any remedial measures required under paragraph B(4).
- (d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

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STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

C. MONITORING AND RECORDS

1. General Requirements. This permit shall be subject to such monitoring requirements as may be reasonably required by the Department including the installation, use and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The permittee shall provide the Department with periodic reports on the proper Department reporting form of monitoring results obtained pursuant to the monitoring requirements contained herein.

2. Representative sampling. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. If effluent limitations are based wholly or partially on quantities of a product processed, the permittee shall ensure samples are representative of times when production is taking place. Where discharge monitoring is required when production is less than 50%, the resulting data shall be reported as a daily measurement but not included in computation of averages, unless specifically authorized by the Department.

3. Monitoring and records.

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip 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, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.
- (c) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- (d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.
- (e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

D. REPORTING REQUIREMENTS

1. Reporting requirements.

- (a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - (i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - (ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).
 - (iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
- (b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.
- (d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.
 - (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.
 - (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.
- (e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (f) Twenty-four hour reporting.
 - (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

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has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

- (ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

- (A) Any unanticipated bypass which exceeds any effluent limitation in the permit.

- (B) Any upset which exceeds any effluent limitation in the permit.

- (C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

- (iii) The Department may waive the written report on a case-by-case basis for reports under paragraph (f)(ii) of this section if the oral report has been received within 24 hours.

- (g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.

- (h) Other information. Where 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 Department, it shall promptly submit such facts or information.

2. Signatory requirement. All applications, reports, or information submitted to the Department shall be signed and certified as required by Chapter 521, Section 5 of the Department's rules. State law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained by any order, rule, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

3. Availability of reports. Except for data determined to be confidential under A(9), above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by State law, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal sanctions as provided by law.

4. Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under this Section, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- (i) One hundred micrograms per liter (100 ug/l);

- (ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

- (iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or

- (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

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- (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (i) Five hundred micrograms per liter (500 ug/l);
 - (ii) One milligram per liter (1 mg/l) for antimony;
 - (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
 - (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

- (a) All POTWs must provide adequate notice to the Department of the following:
 - (i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
 - (ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - (iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- (b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

1. Emergency action - power failure. Within thirty days after the effective date of this permit, the permittee shall notify the Department of facilities and plans to be used in the event the primary source of power to its wastewater pumping and treatment facilities fails as follows.

- (a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.
- (b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

2. Spill prevention. (applicable only to industrial sources) Within six months of the effective date of this permit, the permittee shall submit to the Department for review and approval, with or without conditions, a spill prevention plan. The plan shall delineate methods and measures to be taken to prevent and or contain any spills of pulp, chemicals, oils or other contaminants and shall specify means of disposal and or treatment to be used.

3. Removed substances. Solids, sludges trash rack cleanings, filter backwash, or other pollutants removed from or resulting from the treatment or control of waste waters shall be disposed of in a manner approved by the Department.

4. Connection to municipal sewer. (applicable only to industrial and commercial sources) All wastewaters designated by the Department as treatable in a municipal treatment system will be cosigned to that system when it is available. This permit will expire 90 days after the municipal treatment facility becomes available, unless this time is extended by the Department in writing.

F. DEFINITIONS. For the purposes of this permit, the following definitions shall apply. Other definitions applicable to this permit may be found in Chapters 520 through 529 of the Department's rules

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For bacteria, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. Except, however, bacteriological tests may be calculated as a geometric mean.

Average weekly discharge limitation means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best management practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Composite sample means a sample consisting of a minimum of eight grab samples collected at equal intervals during a 24 hour period (or a lesser period as specified in the section on monitoring and reporting) and combined proportional to the flow over that same time period.

Continuous discharge means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

Daily discharge means 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 limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

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Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by approved States as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Flow weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab sample means an individual sample collected in a period of less than 15 minutes.

Interference means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- (1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- (2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum daily discharge limitation means the highest allowable daily discharge.

New source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

- (a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or
- (b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

Pass through means a discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of 40 CFR parts 122, 123 and 124. Permit includes an NPDES general permit (Chapter 529). Permit does not include any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Person means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

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Point source means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

Pollutant means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or byproducts, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works ("POTW") means any facility for the treatment of pollutants owned by the State or any political subdivision thereof, any municipality, district, quasi-municipal corporation or other public entity.

Septage means, for the purposes of this permit, any waste, refuse, effluent sludge or other material removed from a septic tank, cesspool, vault privy or similar source which concentrates wastes or to which chemicals have been added. Septage does not include wastes from a holding tank.

Time weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected over a constant time interval.

Toxic pollutant includes any pollutant listed as toxic under section 307(a)(1) or, in the case of sludge use or disposal practices, any pollutant identified in regulations implementing section 405(d) of the CWA. Toxic pollutant also includes those substances or combination of substances, including disease causing agents, which after discharge or upon exposure, ingestion, inhalation or assimilation into any organism, including humans either directly through the environment or indirectly through ingestion through food chains, will, on the basis of information available to the board either alone or in combination with other substances already in the receiving waters or the discharge, cause death, disease, abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organism or their offspring.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole effluent toxicity means the aggregate toxic effect of an effluent measured directly by a toxicity test.

ATTACHMENT A

3/23/2016

MERCURY REPORT - Clean Test Only

Data Date Range: 23/Mar/2001 - 23/Mar/2016



Facility: REENERGY LIVERMORE FALLS

Permit Number: ME0023710

Max (ug/l): 0.0166

Average (ug/l): 0.0099

Sample Date	Result (ng/l)	Lsthan	Clean
05/12/2009	16.60	N	T
06/09/2009	14.20	N	T
03/10/2010	5.60	N	T
05/19/2010	9.14	N	T
07/13/2011	8.70	N	T
10/13/2011	15.80	N	T
12/03/2012	6.54	N	T
10/21/2013	9.14	N	T
11/21/2014	5.94	N	T
11/09/2015	6.92	N	T

**MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
MAINE WASTE DISCHARGE LICENSE**

Proposed Draft FACT SHEET

DATE: JUNE 2, 2016

PERMIT NUMBER: ME0023710

WASTE DISCHARGE LICENSE: W007705-5S-I-R

NAME AND ADDRESS OF APPLICANT:

**REENERGY LIVERMORE FALLS, LLC
P.O. BOX 430
FORT FAIRFIELD, ME. 04742**

COUNTY: ANDROSCOGGIN

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S):

**REENERGY LIVERMORE FALLS
267 DIAMOND ROAD, LIVERMORE FALLS, MAINE 04254**

RECEIVING WATER/CLASSIFICATION: ANDROSCOGGIN RIVER/CLASS C

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

**MR. WILLIAM PARKER, REGIONAL ENVIRONMENTAL COORDINATOR
(207) 473-7592 EXT. 206
wparker@reenergyholdings.com**

FACILITY OPERATOR

**MR. DAVID ETTINGER, FACILITY MANAGER
(207) 897-6592**

1. APPLICATION SUMMARY

- a. Application: On March 15, 2016, the Department of Environmental Protection (Department) accepted as complete for processing an application from ReEnergy for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0023710/ Maine Waste Discharge License (WDL) #W007705-5S-F-R, which was issued by the Department on September 12, 2011 for a five-year term. The 9/12/11 permit authorized the monthly average discharge of 138,000 gallons per day (GPD) and a daily maximum of 175,000 GPD of cooling tower blowdown, boiler blowdown, demineralization system ion exchange regeneration water, storm water, cooling water, and cooling tower mist from its biomass electrical generating station to the Androscoggin River, Class C, in Livermore Falls, Maine.

2. PERMIT SUMMARY

- a. Terms and conditions: This permitting action is carrying forward all the terms and conditions of the previous permitting action except that this permitting action:
1. Incorporates monitoring and reporting requirements for the interim mercury limitations established by the Department for this facility pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and *Waste discharge licenses*, 38 M.R.S. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 C.M.R. 519 (last amended October 6, 2001);
 2. Reduces the monitoring frequency for zinc and chromium from 1/Month to 1/Quarter;
 3. Eliminates Special Condition A. 2. *Effluent Limitations and Monitoring Requirements* regarding the discharge of stormwater and associated conditions;
 4. Corrects a rounding error for the daily maximum mass limit for total chromium (from 0.28 lbs./day to 0.29 lbs./day);
 5. Establishes a 1/Year monitoring frequency for temperature during the months of October through May, annually; and
 6. Corrects the daily maximum oil & grease limit (15 mg/L) that was erroneously identified in the previous permit limitations table.

2. PERMIT SUMMARY (cont'd)

- b. History: This section provides a summary of significant licensing/permitting actions and milestones that have been completed for the permittee's facility.

March 10, 1992 – The Department issued a new WDL to Northeast Empire Limited Partnership (NELP) for a five-year term. WDL #W007705-42-A-N authorized the discharge of miscellaneous non-process waste waters from a newly constructed biomass fueled electrical generating facility.

June, 1992 - NELP's Beaverwood facility commenced operations and began discharging to the Androscoggin River.

September 28, 1992 - The U.S. Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) permit #ME0023710 for a five-year term. The permit authorized the same discharge and contained the same numeric limitations and monitoring requirements contained in the 3/10/92 State WDL.

May 23, 2000 – Pursuant to Maine law, 38 M.R.S. §420 and §413 and Department rule, 06-096 C.M.R. Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL # W007705-42-A-N by establishing interim monthly average and daily maximum effluent concentration limits of 25.0 parts per trillion (ppt) and 37.5 ppt, respectively, and a minimum monitoring frequency requirement of 2 tests per year for mercury.

July 12, 2000 – The Department administratively modified the 3/10/92 WDL by establishing interim mean and maximum technology based concentration limitations of 25.0 ng/L and 37.5 ng/L, respectively for mercury.

December 28, 2000 – The Department issued WDL renewal #W007705-5R-B-R for a five-year term.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permit program in Maine. From that date forward, the permit program has been referred to as the MEPDES permit program and ME0023710 (same as the NPDES permit) will be the primary reference number for the facility.

May 8, 2002 – The Department transferred all permits and licenses issued by the Department for the Livermore Falls electrical generation facility to Boralex Livermore Falls Inc.

December 16, 2006 – The Department issued combination MEPDES permit #ME0023710/Maine WDL #W007705-5R-D- R for a five year term.

2. PERMIT SUMMARY (cont'd)

September 12, 2011 – The Department issued MEPDES permit #ME0023710 / WDL #W007705-5S-M-R for a five-year term.

October 17, 2014 – The Department issued Minor Revision #ME0023710/WDL #W007705-5S-H-M to amend the Footnotes section to reflect new sampling locations as well as amend the TSS footnote of the September 12, 2011 permit.

March 16, 2016 – The permittee submitted a timely and complete General Application to the Department for renewal of the September 12, 2011 permit (including subsequent minor permit revisions and permit modifications). The application was accepted for processing on the same day and was assigned WDL #W007705-5S-I-R / MEPDES #ME0023710.

May 24, 2016 – The Department issues a Field Determination stating that Stormwater Outfall 001E comingles with facility effluent and is therefore covered under the MEPDES permit, Outfall 002 was determined to be disconnected with industrial activity, and Outfall 003 was connected to the nearby road and not connected with industrial activity. As long as appropriate BMPs are established for ash management from the ash storage building, the Field Determination concluded that the facility need not apply for coverage under the Multi-Sector General Permit for Industrial Stormwater as any coverage needed for its discharge is contained within this MEPDES permit.

- c. Source Description: ReEnergy operates a 39.6 megawatt steam electric power generating station that is fueled by various biomass wood fuels. Biomass fuel consists of conventional wood fuel. Biomass fuel is delivered by enclosed trailer truck to the facility. The facility's fuel receiving system consists of two truck dumpers and two receiving hoppers and an enclosed scalper/hog. Fuel is conveyed to the long-term fuel storage area by way of an enclosed conveyor, then transferred via fuel reclaiming equipment, additional covered conveyors and an enclosed boiler feed system to the boiler furnace.

In brief, wood is used as fuel to boil water and create steam. Steam is used to turn or power turbines which are connected to generators. These generators convert the power to usable electricity.

The facility's ash removal system consists of an ash conditioning system, enclosed conveyors, and an enclosed ash storage area. Also, various auxiliary systems are installed to support proper operation of the boiler and turbine/generator system.

After moving through the turbine, the steam moves to a cooling tower where it becomes water again.

Stormwater is collected in a lined retention pond where it is available for use via an existing fire suppression system. The retention pond discharge comingles with the facility effluent via Outfall #001E.

2. PERMIT SUMMARY (cont'd)

A map showing the location of the facility and the receiving water is included as Fact Sheet **Attachment A**.

- d. Wastewater Treatment: All of the plant floor drains in the turbine/generator building are directed to a 450-gallon oil/water separator. The oil/water separator has a design flow of 30 gpm with a 15 minute retention capacity. The oil/water separator removes sediment and floating pollutants (oil) from incoming water. Regular maintenance is required to remove accumulated debris. The oil/water separators will be maintained according to the Operations & Maintenance Manual provided with the separators, and records of inspections and maintenance activities must be kept at the facility.

Underflow from the oil/water separator flows to the turbine/generator building sump. One of two pumps lift the wastewater into a 10,000 gallon neutralization tank where its pH is adjusted (along with demineralizer regeneration wastewater) and then conveys the water into the cooling tower circulation return line. Blow down from the cooling tower joins several other wastewater flows and is discharged to the Androscoggin River through Outfall #001E via a corrugated metal pipe measuring 18 inches in diameter and extends out into the river approximately 20 feet. Also, oil used or held in equipment supporting the turbine generator rests inside minor containment structures which are designed to retain drips and minor leakage of oil. If a spill of oil were to occur, the oil would be collected in the oil/water separator.

Sulfuric acid is used for cooling tower water pH control. Sodium hydroxide is used for demineralizer regeneration and neutralization of the demineralizer regenerant and other wastewater. Sodium hypochlorite is used for cooling tower water treatment.

See **Attachment B** of this permit for a water balance diagram for this facility.

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require the application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, *Certain deposits and discharges prohibited*, 38 M.R.S. § 420 and Department rule *Surface Water Toxics Control Program*, 06-096 C.M.R. 530 (effective March 21, 2012), require the regulation of toxic substances so as not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 C.M.R. 584 (effective July 29, 2012), and ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of major river basins, 38 M.R.S. § 467(1)(A)(2) classifies the Androscoggin River (From its confluence with the Ellis River to a line formed by the extension of the Bath-Brunswick boundary across Merrymeeting Bay in a northwesterly direction) at the point of discharge as Class C waters. *Standards for classification of fresh surface waters*, 38 M.R.S. § 465(4) describes the standards for Class C waters.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2012 Integrated Water Quality Monitoring and Assessment Report, prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists the 21.7 mile long main stem segment of the Androscoggin River from Riley Dam to Nezinscot River (Assessment Unit ID ME0104000206_423R) as, “Category 4-B: Rivers and Streams Impaired by Pollutants – Pollution Control Requirements Reasonably Expected to Result in Attainment” for Dioxin (including 2,3,7,8-TCDD). This segment is also listed in Category 5-D for Legacy polychlorinated biphenyls (PCBs).

The Report lists all of Maine’s fresh waters as, “Category 4-A: Waters Impaired by Atmospheric Deposition of Mercury.” Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The Report states, “All freshwaters are listed in Category 4A (Total Maximum Daily Load (TMDL) Completed) due to USEPA approval of a Regional Mercury TMDL.” Maine has a fish consumption advisory for fish taken from all freshwaters due to mercury. Many fish from any given waters do not exceed the action level for mercury. However, because it is impossible for someone consuming a fish to know whether the mercury level exceeds the action level, the Maine Department of Health and Human Services decided to establish a statewide advisory for all freshwater fish that recommends limits on consumption.

Maine has already instituted statewide programs for removal and reduction of mercury sources. Pursuant to 38 M.R.S. § 420(1-B)(B), “a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11.” The Department has established interim monthly average and daily maximum mercury concentration limits and reporting requirements for this facility pursuant to 06-096 C.M.R. 519.

The Department has no information that the discharge from the permittee, as conditioned, causes or contributes to non-attainment of applicable Class C water quality standards.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. Applicability of National Effluent Guidelines: The discharge is subject to USEPA effluent guidelines for the *Steam Electric Generating Point Source Category* at 40 CFR Part 423. The wastewater discharges from outfall #001A are categorized as cooling tower blowdown, low volume wastewater from equipment and building drains. Limits on parameters are specified to ensure attainment of the in-stream water quality criteria and that best practicable treatment (BPT) is utilized. Permits issued by the Department impose the more stringent of the calculated water quality based or BPT based limits. Applicable sections of 40 CFR 423 include:

40 CFR Part 423.12(b)(3): Limits TSS and oil and grease from low volume waste Sources.

40 CFR Part 423.12(b)(7): Limits free available chlorine in cooling tower blowdown.
40 CFR Part 423.13(d)(1): Limits total chromium and total zinc in cooling tower blowdown.

- b. Flow: The previous permitting action established monthly average and daily maximum dry weather flow limits of 0.138 million gallons a day (MGD) and 0.175 MGD, respectively that are being carried forward in this permitting action. This permitting action is also carrying forward the continuous discharge flow monitoring requirement. A review of the monthly Discharge Monitoring Report (DMR) data for the period October 2011 – January 2016 indicates the following:

Flow (DMRs=51)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	0.138	0.01 – 0.09	0.04
Daily Maximum	0.175	0.02 – 0.12	0.07

- c. Dilution Factors: Dilution factors associated with the permitted discharge flow of 138,000 GPD (0.138 MGD) from the ReEnergy facility were established in accordance with freshwater protocols established in *Surface Water Toxics Control Program*, 06-096 C.M.R. 530 (last amended March 21, 2012) and were calculated as follows:

$$\text{Dilution Factor} = \frac{(\text{River Flow in cfs})(\text{Conversion Factor})}{\text{Plant Flow in MGD}}$$

$$\text{Modified Acute Dilution} = \frac{(433 \text{ cfs})(0.6464)}{(0.138 \text{ MGD})} = 2,028:1$$

$$\text{Acute Dilution} = \frac{(433 \text{ cfs})(0.6464)}{(0.138 \text{ MGD})} = 2,028:1$$

$$\text{Chronic Dilution} = \frac{(1,730 \text{ cfs})(0.6464)}{(0.138 \text{ MGD})} = 8,103:1$$

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

$$\text{Harmonic Dilution} = \frac{(3,197 \text{ cfs})(0.6464)}{(0.138 \text{ MGD})} = 14,975:1$$

06-096 C.M.R. 530(4)(B)(1) states that analyses using numeric acute criteria for aquatic life must be based on ¼ of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it.

ReEnergy has not provided the Department with information as to the actual mixing characteristics of the discharge; therefore, the Department is utilizing the default stream flow of ¼ of the 1Q10 in acute evaluations.

- d. **Total Suspended Solids (TSS):** The previous permitting action carried forward concentration limitations based on the best practicable control technology currently available (BPT) effluent guidelines promulgated at 40 CFR Part 423.12(b)(3). In the 2006 permit, multiple outfalls were joined, and the most stringent limitation became the limit for the current single outfall (#001E).

The technology based mass limits are also being carried forward in this permitting action and were derived as follows:

$$\begin{aligned}\text{Monthly Average: } & (30 \text{ mg/L})(8.34)(0.138 \text{ MGD}) = 34 \text{ lbs./day} \\ \text{Daily Maximum: } & (50 \text{ mg/L})(8.34)(0.175 \text{ MGD}) = 73 \text{ lbs./day}\end{aligned}$$

The previous permitting action established a minimum monitoring frequency requirement of twice per month for TSS, which is being carried forward in this permitting action. A review of the DMRs for the period October 2011 – January 2016 indicates the following:

TSS Mass (n=51)

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	34	0.0 – 17.8	6
Daily Maximum	73	0.3 – 28.9	7

TSS Concentration (n=51)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	<1.0 – 53.0	15
Daily Maximum	50	<2.0 – 53.0	18

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

Further investigation has shown that the cooling water drawn from the Androscoggin River contains TSS. A portion of this TSS is made up of silica. Both influent and effluent silica levels are monitored daily by the facility operator and comparison of the influent and effluent silica values indicates that the influent is concentrated by a factor of 6 as it passes through the ReEnergy plant. Based on this information the Department has agreed to allow ReEnergy to remove the amount of TSS contributed by intake and concentration of river water as part of the cooling tower operations ($\text{influent TSS} \times 6 = \text{TSS}_R$) from the TSS in the plant outflow (TSS_O) to determine the amount of TSS added to the effluent outflow by plant operations (TSS_E).

- e. Free Available Chlorine (FAC): The previous permitting action established, and this permitting action is carrying forward a monthly average and daily maximum technology based chlorine limitations of 0.2 mg/L and 0.5 mg/L. The previous permitting action established limits based on BPT limitation found in 40 CFR 423.12(b)(7). This permitting action is carrying forward the 1/Month monitoring frequency that was established in the previous permit.

A review of the monthly DMR data for the period October 2011 – January 2016 indicates the following:

FAC Concentration (n=51)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	0.2	0.00 – 0.20	0.1
Daily Maximum	0.5	0.00 – 0.22	0.1

- f. Oil and Grease: Effluent guidelines promulgated at 40 CFR Part 423.12(b)(3) establish monthly average and daily maximum concentration limitations of 15 mg/L and 20 mg/L, respectively, for oil and grease. The previous permitting action established, and this permitting action is carrying forward a Department water quality based daily maximum concentration limitation of 15 mg/L for oil and grease. The concentration limits was based on a Department best professional judgment of the level at which an oil sheen will be visible and is consistent with other permitting actions. This permitting action is carrying forward the 1/Month monitoring frequency established in the previous permit.

A review of the monthly DMR data for the period April 2013 – January 2016 indicates the following:

Oil & grease Concentration (n=34)

Value	Limit (mg/L)	Range (mg/L)
Monthly Average	15	<5 – <5.6
Daily Maximum	20	<5 – <5.6

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

- g. **Temperature:** The previous permitting action established a year-round daily maximum limit of 90°F but only established seasonal monitoring (1/Month) from June 1 – September 30, the most critical time for impacts to the receiving waters. See **Attachment D** of this Fact Sheet for a discussion on the Department's rules regarding thermal discharges and calculations relating to the impact (lack thereof) of the thermal discharge on the Androscoggin River.

A review of the monthly DMR data for the period June 2012 – September 2015 indicates the following:

Temperature (n=16)

Value	Limit (°F)	Range (°F)	Mean (°F)
Daily Maximum	90	47 – 89	66

This permitting action is carrying forward the 1/Month temperature monitoring requirement during the months of June, July and August of each year. This permitting action is also establishing a 1/Year monitoring frequency for temperature for the months of October through May, annually.

- h. **pH:** The previous permitting action established, and this permitting action is carrying forward, a BPT-based pH limit of 6.0 – 9.0 standard units, which is based on the effluent guideline limitations promulgated at 40 CFR Part 423.12(b)(1), and a 1/Month monitoring requirement.

A review of the DMR data for the period October 2011 – January 2016 indicates the following:

pH (n=51)

Value	Limit (SU)	Range (SU)
Daily Maximum	6.0 – 9.0	6.7 – 8.8

- i. **Total Chromium:** The previous permitting action established monthly average and daily maximum concentration limits of 0.2 mg/L for total chromium based on promulgated effluent guideline limitations for total chromium found at 40 CFR Part 423.13(d)(1). The previous permit also established technology based monthly average and daily maximum limitations of 0.23 lbs./day and 0.28 lbs./day respectively pursuant to *Waste Discharge License Conditions*, 06-096 C.M.R. 523(6)(f)(2). The mass limitations for total chromium were derived as follows:

Monthly Average Chromium Mass Limit: $(0.20 \text{ mg/L})(8.34)(0.138 \text{ MGD}) = 0.23 \text{ lbs./day}$
Daily Maximum Chromium Mass Limit: $(0.20 \text{ mg/L})(8.34)(0.175 \text{ MGD}) = 0.29^* \text{ lbs./day}$

*Due to a rounding error, the previous permit incorrectly stated the daily maximum mass limit as 0.28 lbs./day.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

A review of the DMR data for the period October 2011 – January 2016 indicates the following:

Chromium Mass (n=51)

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	0.23	0.00 – 0.04	0.01
Daily Maximum	0.29	0.00 – 0.04	0.01

Chromium Concentration (n=51)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	0.20	0.00 – 0.21	0.03
Daily Maximum	0.20	0.00 – 0.23	0.03

A daily maximum/monthly average concentration of 0.206 mg/L was recorded in October, 2011. A daily maximum result of 0.227 mg/L was recorded in February 2012. The previous permitting action established a minimum monitoring frequency requirement of once per month for total chromium. However, given the overall compliance history and in comparison with other similar facilities, this permitting action is reducing the minimum monitoring frequency to 1/Quarter based on a Department best professional judgment.

- j. Total Zinc: The previous permitting action established monthly average and daily maximum concentration limits of 1.0 mg/L for total zinc based on promulgated effluent guideline limitations for total zinc found at 40 CFR Part 423.13(d)(1). The previous permit also established technology based monthly average and daily maximum limitations of 1.2 lbs./day and 1.4 lbs./day respectively pursuant to *Waste Discharge License Conditions*, 06-096 C.M.R. 523(6)(f)(2). The mass limitations for total zinc were derived as follows:

Monthly Average Zinc Mass Limit: $(1.0 \text{ mg/L})(8.34)(0.138 \text{ MGD}) = 1.2 \text{ lbs./day}$

Daily Maximum Zinc Mass Limit: $(1.0 \text{ mg/L})(8.34)(0.175 \text{ MGD}) = 1.4 \text{ lbs./day}$

A review of the DMR data for the period October 2011 – January 2016 indicates the following:

Zinc Mass (n=50)

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	1.2	0.01 – 0.23	0.05
Daily Maximum	1.4	0.01 – 0.23	0.05

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)**Zinc Concentration (n=50)**

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	1.0	0.05 – 0.44	0.1
Daily Maximum	1.0	0.05 – 0.44	0.1

The previous permitting action established a minimum monitoring frequency requirement of once per month for total zinc. However, given the compliance history and in comparison with other similar facilities, this permitting action is reducing the minimum monitoring frequency to 1/Quarter based on a Department best professional judgment.

- k. Mercury: Pursuant to 38 M.R.S. § 420 and 38 M.R.S. § 413 and 06-096 C.M.R. 519, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL # W007705-42-A-N by establishing interim monthly average and daily maximum effluent concentration limits of 25.0 ppt and 37.5 ppt, respectively, and a minimum monitoring frequency requirement of 2 tests per year for mercury.

38 M.R.S. § 420(1-B)(B)(1) provides that a facility is not in violation of the AWQC for mercury if the facility is in compliance with an interim discharge limit established by the Department. A review of the Department's database for the period May 2009 through November 2015 is as follows:

Mercury (N = 10)

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Monthly Average	25.0	5.60 – 16.60	9.9
Daily Maximum	37.5		

On February 6, 2012, the Department issued a minor revision to the September 12, 2011 permit thereby revising the minimum monitoring frequency requirement from twice per year to once per year pursuant to 38 M.R.S. § 420(1-B)(F). This minimum monitoring frequency is being carried forward in this permitting action.

- l. Whole Effluent Toxicity (WET) and Priority Pollutant Testing: 38 M.R.S. § 414-A and 38 M.R.S. § 420 prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. 06-096 C.M.R. 530 sets forth effluent monitoring requirements and procedures to establish safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected and narrative and numeric water quality criteria are met.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

06-096 C.M.R. 530(2)(A) states, “...all licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedences of narrative or numerical water quality criteria.”

06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, sets forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

Dischargers are categorized based on the dilution of the receiving water and the potential risk of toxic contamination. The four categories for dischargers are as follows:

Level I	Chronic dilution factor of <20:1
Level II	Chronic dilution factor of $\geq 20:1$ but <100:1.
Level III	Chronic dilution factor $\geq 100:1$ but <500:1 or >500:1 and $Q \geq 1.0$ MGD
Level IV	Chronic dilution >500:1 and $Q \leq 1.0$ MGD

Based on the criteria, the permittee's facility is considered a Level IV discharger as the chronic dilution of the receiving water is 8,103:1 and the permitted flow is equal to or less than 1.0 MGD.

Using the categorization criteria as stated above, and pursuant to 06-096 C.M.R. 530 (2)(D)(1), Level IV dischargers may be waived from routine testing requirements except that the Department is requiring the facility to conduct testing under the following conditions.

- (a) The discharger's permit application or information available to the Department indicate that toxic compounds may be present in toxic amounts; or
- (b) Previous testing conducted by the discharger or similar dischargers indicates that toxic compounds may be present in toxic amounts.

Special Condition H, 06-096 C.M.R. 530(D)(2)(4) *Statement For Reduced/Waived Toxics Testing*, of this permitting action requires the permittee to file an annual certification with the Department. See **Attachment C** of this Fact Sheet for a discussion regarding this matter.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

However, should there be a substantial change in the characteristics of the discharge in the future, the Department may reopen this permit pursuant to Special Condition J, *Reopening of Permit For Modification*, of this permit to incorporate the applicable WET, priority pollutant, or analytical testing requirements cited above.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the water body to meet standards for Class C classification.

8. PUBLIC COMMENTS

Public notice of this application was made in the *Sun Journal* newspaper on or about March 11, 2016. The Department receives public comments on an application until the date a final agency action is taken on the application. Those persons receiving copies of draft permits must have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to *Application Processing Procedures for Waste Discharge Licenses*, 06-096 C.M.R. 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from, and written comments sent to:

Cindy L. Dionne
Division of Water Quality Management - Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 557-5950
e-mail: Cindy.L.Dionne@maine.gov

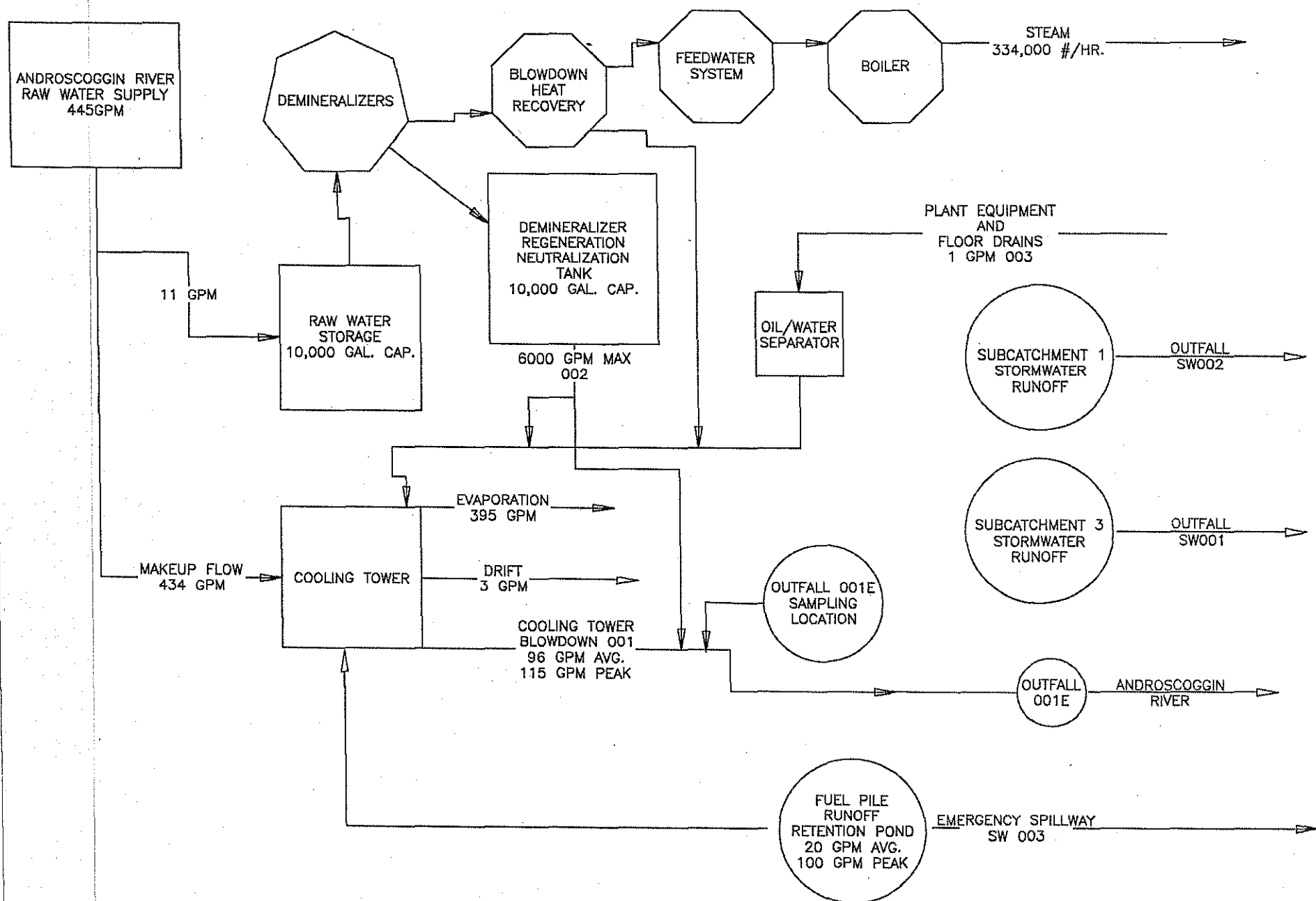
10. RESPONSE TO COMMENTS

Reserved until the end of the formal 30-day public comment period.

ATTACHMENT A

· Fax: 207 622-6346

ATTACHMENT B



Simplified Water Supply and Drains Schematic
flow rates assume summer conditions

ATTACHMENT C

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

MEPDES# _____ Facility Name _____

Since the effective date of your permit, have there been;		NO	YES Describe in comments section
1	Increases in the number, types, and flows of industrial, commercial, or domestic discharges to the facility that in the judgment of the Department may cause the receiving water to become toxic?	<input type="checkbox"/>	<input type="checkbox"/>
2	Changes in the condition or operations of the facility that may increase the toxicity of the discharge?	<input type="checkbox"/>	<input type="checkbox"/>
3	Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge?	<input type="checkbox"/>	<input type="checkbox"/>
4	Increases in the type or volume of hauled wastes accepted by the facility?	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

Name (printed): _____

Signature: _____ Date: _____

This document must be signed by the permittee or their legal representative.

This form may be used to meet the requirements of Chapter 530.2(D)(4). This Chapter requires all dischargers having waived or reduced toxic testing to file a statement with the Department describing changes to the waste being contributed to their system as outlined above. As an alternative, the discharger may submit a signed letter containing the same information.

Scheduled Toxicity Testing for the next calendar year

Test Conducted	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
WET Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Priority Pollutant Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analytical Chemistry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other toxic parameters ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please place an "X" in each of the boxes that apply to when you will be conducting any one of the three test types during the next calendar year.

¹ This only applies to parameters where testing is required at a rate less frequently than quarterly.

ATTACHMENT D

ATTACHMENT C

The text that follows is from WDL #W007705-5R-B-R issued by the Department on December 28, 2000.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:

Both the previous State WDL and federal NPDES permit made the determination that the NELP facility was subject to the National Effluent Guidelines for the Steam Electric Power Generating Point Source Category found at 40 code of federal regulation (CFR) Part 423. As a result, both documents regulated various internal waste streams as well as the final outfall to the Androscoggin River.

The previous WDL and federal NPDES differed in alpha-numeric designations of the individual outfalls. For the purposes of this licensing action, the alpha-numeric designations in the previous State WDL are being carried forward in this licensing action. They are as follows:

- 001A – Cooling Tower Blowdown - Internal waste stream*
- 001B – Ion-Exchange Treatment System Backwash – Internal waste stream*
- 001C – Floor Washdown Waters – Internal waste stream*
- 001D – Fuel Storage Area Storm Water Run-off – Internal Waste Stream*
- 001E – Combined Waste Waters – Final outfall that conveys waste waters from 001A, 001B, 001C and 001D to the Androscoggin River.*

Effluent limitations for each outfall listed above were derived as follows:

Outfall #001A – Cooling Tower Blowdown/Internal waste stream – Best practicable treatment (BPT) effluent limitations for boiler blowdown and cooling tower blowdown were established pursuant to 40 CFR Part 423.15(j).

Free available chlorine, total chromium, total zinc and pH - The limits for free available chlorine, chromium, zinc and pH and applicable footnotes in the previous licensing action are best practicable treatment (technology based) limits and are being carried forward in this licensing action. A review of the Discharge Monitoring Report (DMR) data for each parameter for the period 1992 to the present indicates 100% compliance with the exception of two minor violations of the chromium limits in June of 1999. As a result, the Department is reducing the monitoring frequencies for each parameter as follows:

- Chlorine – Reduce from 1/Day to 1/Week.*
- Chromium & Zinc – Reduce from 2/Month to 1/Month*
- pH - Reduce from 1/Day to 2/Week.*

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Flow - The monthly average and daily maximum flow limits of 0.138 MGD and 0.165 MGD respectively, in the previous licensing action were based on flow rates provided by the licensee in 1992 and are being carried forward in this licensing action. A review of the Discharge Monitoring Report (DMR) flow data for the period 1992 to the present indicates 100% compliance with the flow limits and are representative of the potential discharge from this outfall. The previous WDL required the licensee to continuously monitor the flow for Outfall #001A and this requirement is being carried forward in this licensing action.

Temperature: - The previous license established a daily maximum temperature limit of 83 °F as a technology based limit derived from the licensee's original design calculations. Since commencement of operations in 1992, the limit has only been violated on one (July of 1999) but the data indicates the facility is operating at or about 83°F on a regular basis. Being that the final outfall (#001E) has a daily maximum temperature limit of 90°F and federal regulations do not require a limitation on this internal waste stream, this licensing action is removing the temperature limit and monitoring requirement for this outfall.

Total Suspended Solids (TSS) - The previous license did not establish limitations or monitoring requirements for TSS for this outfall. However, the licensee has requested that Outfall #001C in the previous licensing action be eliminated as all equipment drains and plant floor drains generating waste waters associated with Outfall #001C pass through an oil/water separator prior to being conveyed to the cooling tower basin. All waste waters discharged from the cooling tower basin (predominately cooling tower blowdown) are regulated via Outfall #001A. The Department concurs that elimination of Outfall #001C is appropriate but parameters with BPT limitations listed in federal regulations for Outfall #001C that are not listed for Outfall #001A must be included in the limitations page for Outfall #001A.

Therefore, this licensing action is establishing a monthly average and daily maximum concentration limits of 30 mg/L and 100 mg/L respectively, for TSS based on BPT cited in the federal regulations. The previous license established a monitoring frequency of 2/Month for Outfall #001C. A review of the DMR data for Outfall #001C for the period 1995 to the present indicates discharge values consistently an order of magnitude lower than the aforementioned limitations. Therefore, this licensing action is reducing the monitoring frequency from 2/Month to 1/Month.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Oil & Grease – The previous licensing action did not establish limitations or monitoring requirements for Oil & Grease for this outfall. For the same reasons cited in the description for TSS limits above (elimination of Outfall #001C), this licensing action is establishing a monthly average and daily maximum concentration limit of 15 mg/L and 20 mg/L respectively, based on BPT cited in the federal regulations. The previous license established a monitoring frequency of 2/Month for Outfall #001C. A review of the DMR data for the period 1995 to the present indicates discharge values consistently being reported as <4 mg/L. Therefore, this licensing action is reducing the monitoring frequency from 2/Month to 1/Month.

Priority Pollutants – Priority pollutant testing required by the previous State WDL and federal NPDES was imposed due to the fact that the facility was a new facility and the constituents of the discharge were unknown. NELP conducted six priority pollutant scans between 1993 and 1994. The Department conducted an evaluation on the aforementioned tests results in accordance with the statistical approach outlined in EPA's March 1991 document entitled Technical Support Document (TSD) for Water Quality Based Toxics Control, Chapter 3.3.2 and Maine Department of Environmental Protection Guidance, July 1998, entitled Toxicity Program Implementation Protocols. The evaluation indicates the discharge does not exceed or have a reasonable potential to exceed ambient water quality criteria (AWQC) for any of the parameters tested. Therefore, the Department has made a best professional judgment to remove the requirement for future priority pollutant testing.

Outfall #001B - Ion-Exchange Treatment System Backwash/Internal waste stream. Pursuant to Federal regulation 40 CFR Part 423.11(b), ion exchange water treatment waste waters are defined as low volume waste sources. Federal regulation 40 CFR Part 423.12(b) establishes BPT limitations for low volume waste streams:

Flow - The previous licensing action established a daily maximum flow limit of 6,000 gpd. A review of the DMR flow data for the period 1995 to the present indicates 100% compliance with the flow limits. However, the licensee has requested an increase in the flow limit to 10,000 gpd based on the capacity and historic operation of the treatment system. The water use schematic (Attachment A of this license) indicates that the tank used to neutralize the backwash waters (batch process) prior to discharge has a capacity of 10,000 gallons. Historically, NELP has neutralized the 10,000 gallon batch but limited the discharge volume to 6,000 gpd to maintain compliance with the State WDL and federal NPDES permit. There is no water quality or BPT justification for limiting the discharge to 6,000 gpd. Therefore, this licensing action is establishing a daily maximum flow limitation of 10,000 gpd.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Total Suspended Solids (TSS) – The previous license established monthly average and daily maximum concentration limits of 30 mg/L and 100 mg/L respectively, for TSS based on BPT limits cited in the federal regulations. The previous license established a monitoring frequency of 2/Month. The limits are being carried forward in this licensing action. A review of the DMR data for the period 1995 to the present indicates discharge values consistently an order of magnitude lower than the aforementioned limitations. Therefore, this licensing action is reducing the monitoring frequency from 2/Month to 1/Month.

Oil & Grease – The previous license established a monthly average and daily maximum concentration limit of 15 mg/L and 20 mg/L respectively, based on BPT limits cited in the federal regulations. The previous license established a monitoring frequency of 2/Month. The limits are being carried forward in this licensing action. A review of the DMR data for the period 1995 to the present indicates discharge values consistently be reported as <4 mg/L. Therefore, this licensing action is reducing the monitoring frequency from 2/Month to 1/Month.

pH - The previous license established a pH range limit of 6.0 – 9.0 standard units based on BPT limits cited in the federal regulations. The previous license established a monitoring frequency of 2/Month. The limits are being carried forward in this licensing action. A review of the DMR data for the period 1995 to the present indicates discharge values have never been violated but do fluctuate such that results at both ends of the range have been reported. This licensing action is carrying forward the monitoring frequency from 2/Month.

Outfall #001C - Floor Washdown Waters – Internal waste stream. Pursuant to federal regulation 40 CFR Part 423.11(b), floor washdown waters are defined as low volume waste sources also. Federal regulation 40 CFR Part 423.12(b) establishes BPT limitations for low volume waste streams. The previous licensing action established a monthly average flow limit of 1,500 gpd, and monthly average and daily maximum BPT limits for TSS, Oil & Grease and pH similar to the limits in Outfall #001B described above.

The licensee has requested the Department delete the limitations and monitoring requirements for Outfall #001C. The licensee has indicated that all equipment drains and plant floor drains generating waste waters associated with this outfall pass through an oil/water separator prior to being conveyed to the cooling tower basin. All waste waters discharged from the cooling tower basin (predominately cooling tower blowdown) are regulated via Outfall #001A. The modification request is acceptable to the Department but federal regulations require Outfall #001A be regulated for TSS and Oil & Grease in addition to the BPT limits established for the cooling tower and boiler blowdown waste stream. Outfall #001A is already being limited and monitored for flow and pH.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Outfall #001D – Fuel Storage Area Storm Water Run-off/Internal Waste Stream. Pursuant to Federal regulation 40 CFR Part 423.11(b), there are no BPT limitations for Fuel Storage Area Storm Water Run-off. The 9/92 NPDES permit indicates the limitations for TSS, Oil & Grease and pH were based on a best professional judgment (BPJ).

Flow: The previous licensing action establish a “Report” requirement for flow. Given the nature of the discharge (storm water runoff) and that it is highly variable, limiting the flow is not necessary. The “Report” requirement is being carried forward in this licensing action.

TSS: The previous license established a daily maximum concentration limit of 50 mg/L based on a BPJ. The previous license established a monitoring frequency of 1/Month. The limits are being carried forward in this licensing action. A review of the DMR data for the period 1995 to the present indicates discharge values consistently reported at an order of magnitude lower than the aforementioned limitations. Given the nature of the materials precipitation comes in contact with, this licensing action is retaining the monitoring frequency of 1/Month.

Oil & Grease – The previous license established a daily maximum concentration limit of 15 mg/L based on a BPJ. The previous license established a monitoring frequency of 1/Quarter. The limits are being carried forward in this licensing action. A review of the DMR data for the period 1995 to the present indicates discharge values consistently be reported at or about 6 mg/L. Given the nature of the materials precipitation comes in contact with, this licensing action is retaining the monitoring frequency of 1/Quarter.

pH - The previous license established a pH range limit of 6.0 – 9.0 standard units based on a BPJ. A footnote in the license states that the discharge may be outside the 6.0-9.0 standard unit range if due to natural precipitation. The previous license established a monitoring frequency of 1/Month. The limits are being carried forward in this licensing action. A review of the DMR data for the period 1995 to the present indicates discharge values have never been violated but do fluctuate such that results at both ends of the range have been reported. This licensing action is carrying forward the monitoring frequency from 1/Month.

It is noted that in the autumn of 1997, NELP began accepting fuels such as railroad ties, telephone poles and pressure treated which are known to contain heavy metals, dioxin/furan and phenol compounds. Between January 1999 and the present, NELP sampled the storm water run-off pond for metals and semi-volatile compounds on ten different occasions and polychlorinated dibenzo-p-dioxins (PCDD) and polychlorinated dibenzofurans (PCDF) on one occasion (April 2000) at the request of the Department's Bureau of Remediation and Waste Management (BRWM). The tests were conducted to demonstrate that the chemical characteristics of storm water run-off from the fuel pile(s) before and after accepting railroad ties and telephone poles remained unchanged. The test

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

results were evaluated and found to contain slightly higher levels of metals such as cadmium, copper and lead and semi-volatiles such as pentachlorophenol and phenanthrene. However, when the test results were evaluated after being diluted by the 7Q10 and ¼ 1Q10 low flows of the Androscoggin River when discharged through Outfall #001E, the discharge does not exceed or have a reasonable potential to exceed ambient water quality criteria (AWQC) for any of the pollutants evaluated. No chlorinated dibenzo-p-dioxins (CDD) were detected in the April 2000 sampling event.

Outfall #001E - Combined Waste Waters – Final outfall that conveys waste waters from 001A, 001B, (formerly) 001C and 001D to the Androscoggin River.

Flow: The previous licensing action establish a "Report" requirement for flow. Given the nature of the discharge and that it is highly variable, limiting the flow is not necessary. A review of the DMR data for the period 10/95 to the present indicates the monthly average flow has averaged approximately 18,000 gpd with the daily maximum flows ranging from a low of 15,000 gpd to a high of 97,000 gpd. The "Report" requirement is being carried forward in this licensing action.

Temperature: - The previous license established a daily maximum temperature limit of 90 °F as a technology based limit derived from the licensee's original design calculations. A review of the DMR data for the period 10/95 to the present indicates the temperature of this waste stream has never exceeded 80 °F. To comply with Department Regulation Chapter 582, the flow and temperature of the discharge must be regulated such that during the summer period June 1 – September 30, the discharge does not change the receiving water temperature by more than 0.5°F as a weekly rolling average. The mass balance thermal calculations below indicate that if the Androscoggin River at the point of discharge was at 7Q10 low flow conditions (1,720 cfs or 1,112 MGD) and at a critical temperature of 66°F and the plant was operating at a daily maximum licensed dry weather flow of 175,000 gpd and the daily maximum licensed temperature of 90° F for an entire week, the ΔT in the receiving water would be approximately 0.004°F:

$$(\text{Plant flow})(\text{Discharge Temp}) + (7\text{Q10 flow})(\text{RW Temp}) = (\text{Total flow})(\text{RW Temp})$$

$$(0.175 \text{ MGD})(90^\circ\text{F}) + (1,112 \text{ MGD})(66^\circ\text{F}) = (1,112.175 \text{ MGD})(X^\circ\text{F})$$

$$X = 66.004^\circ\text{F}$$

Being that the discharge pipe from the NELP facility only extends out into the receiving water approximately 20 feet, the Department characterizes this as a bank outfall that does not receive rapid and complete mixing with the receiving waters. Department regulation Chapter 530.5, Surface Water Toxics Control Program, authorizes the Department to make best professional judgment determinations as to what portion of the receiving water

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

is applicable for discharges that do not receive rapid and complete mixing with the receiving water. Because the true mixing characteristics haven't been determined, it is difficult to determine what portion of the 7Q10 river flow is applicable at this facility. Therefore, to determine compliance with Chapter 582, Regulations Relating To Temperature, the Department has manipulated the calculation above to back calculate the threshold receiving water flow that would comply with Chapter 582. The thermal load needed to change 1,112 MGD by 0.5°F is 4.64×10^9 BTU's. The calculation is as follows:

$$(1,112,000,000 \text{ gal})(8.34)(0.5^\circ\text{F}) = 4.64 \times 10^9 \text{ BTU's}$$

The thermal load from the NEPL facility is 3.5×10^7 BTU's. The calculation is as follows:

$$(175,000 \text{ gal})(8.34)(90^\circ\text{F} - 66^\circ\text{F}) = 3.5 \times 10^7 \text{ BTU's}$$

Therefore, the flow in the receiving water would only need to be 0.76% of the 7Q10 or 8.4 MGD based on the following calculation:

$$\frac{3.5 \times 10^7 \text{ BTU's}}{4.637 \times 10^9 \text{ BTU's}} = 0.000755 \text{ or } 0.76\% \Rightarrow (1,112 \text{ MGD})(0.76) = 8.4 \text{ MGD}$$

It is the Department's best professional judgment that the discharge is receiving rapid and complete mixing with at least 0.76% of the 7Q10 receiving water flow and that the discharge complies with Department regulation Chapter 582.

Based on the insignificance of the potential thermal impact on the receiving water during the winter months (October 1 – May 31), this licensing action is eliminating all monitoring and reporting requirements for temperature between October 1 and May 31. The monitoring frequency of 1/Day in the previous licensing action is being reduced to 1/Week during the period June 1 and September 30 of each calendar year. The limitations will remain in effect on a year round basis and remain enforceable year round.

pH - The previous license established a pH range limit of 6.0 – 9.0 standard units based on BPT limits cited in the federal regulations. A footnote in the license states that the discharge may be outside the 6.0-9.0 standard unit range if due to natural precipitation. The previous license established a monitoring frequency of 1/Month. The limits are being carried forward in this licensing action. A review of the DMR data for the period 1995 to the present indicates discharge values have never been violated and are consistently between 8.4 and 8.7 standard units. This licensing action is carrying forward the monitoring frequency from 1/Month.

5. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Whole Effluent Toxicity (WET) testing: Special Condition E of the previous WDL licensing action required NELP to conduct four WET tests on Outfall 001E (final outfall). The licensee conducted 5 tests in 1993, 1 test in 1994 and one test in 1997. Like the priority pollutant scans, the WET tests were statistically evaluated and the results of that evaluation indicate that the discharge does not exceed or have a reasonable potential to exceed ambient water quality thresholds – acute 0.06%, chronic 0.015% (mathematical inverse of the dilution factors). Therefore, the Department has made a best professional judgment to remove the requirement for future WET testing.