STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

April 7, 2016

Mr. William Parker
ReEnergy Fort Fairfield, LLC
P.O. Box 430
Fort Fairfield, ME. 04742

Sent via electronic mail
Delivery confirmation requested

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0023329
Maine Waste Discharge License (WDL) Application #W007365-5S-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 April 7, 2016 and ends on Monday, May 9, 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 Monday, May 9, 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

website: www.maine.gov/dep

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

ec: Barry Mower, DEA
Pamela Parker, DEP
Sean Bernard, DEP
Lori Mitchell, DEP
Fred Corey, Arrostook Band of Micmac Indians
Environmental Review, DMR
David Webster, USEPA
David Pincumbe, USEPA
Alex Rosenberg, USEPA
Olga Vergara, USEPA
Marelyn Vega, USEPA
Richard Carvalho, USEPA
Environmental Review, IFW
Sharri Venno, Houlton Band of Maliseet Indians
Lauri Zicari, USFWS

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

REENERGY FORT FAIRFIELD, LLC	)	MAINE POLLUTANT DISCHARGE
FORT FAIRFIELD, AROOSTOOK COUNTY	)	ELIMINATION SYSTEM PERMIT
ELECTRIC GENERATING STATION	)	AND
ME0023329	)	WASTE DISCHARGE LICENSE
W007365-5S-I-R **APPROVAL**	)	**RENEWAL**

In compliance with the applicable provisions of the *Pollution Control,* 38 M.R.S.A. §§ 411 – 424-B, *Water Classification Program*, 38 M.R.S.A. §§ 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 FORT FAIRFIELD, LLC (ReEnergy), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

On January 11, 2016, the Department accepted as complete for processing an application from ReEnergy for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0023329/ Maine Waste Discharge License (WDL) #W007365-5S-F-R, which was issued by the Department on May 24, 2011 for a five-year term. The 5/24/11 permit authorized the monthly average discharge of up to 68,160 gallons per day (GPD) and a daily maximum of up to 138,000 GPD of non-contact cooling water, wood fuel storage area leachate, site runoff, cooling tower mist and storm water from a treatment lagoon non-contact cooling water, facility process wastewater, woodpile leachate, site runoff, and storm water runoff from a wood-fired electrical generating station to the Aroostook River, Class C, in Fort Fairfield, 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.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001);

2. Reduces the monitoring frequency for free available chlorine (FAC) from 1/Day to 4/Week;

PERMIT SUMMARY (cont'd)

3. Reduces the monitoring frequency for zinc and chromium from 1/Quarter to 1/Year; and

4. Eliminates conditions and authorization for storm water discharges. Storm water associated with this industrial facility must be covered under the Department's *Multi-Sector General Permit Stormwater Associated with Industrial Activity*, MER050000.

CONCLUSIONS

BASED on the findings in the attached and incorporated Fact Sheet dated April 7, 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.A. §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.

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.A. § 414-A(1)(D).

ACTION

THEREFORE, the Department APPROVES the above noted application of REENERGY FORT FAIRFIELD LLC to discharge a monthly average flow of 68,160 gallons per day (GPD) and a daily maximum flow of 138,000 GPD of non-contact cooling water and process wastewater from a treatment lagoon to the Aroostook River, Class C, in Fort Fairfield, 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.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matter*s, 06-096 CMR 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: January 6, 2016
Date of application acceptance: January 11, 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 non-contact cooling water, wood fuel storage area leachate, site runoff, and cooling tower mist via **Outfall #001A** to the Aroostook River at Fort Fairfield. Such discharges are limited and must be monitored by the permittee as specified below [(1), (2)]:

	Discharge Limitations				Minimum Monitoring Requirements	
Effluent Characteristic	**Monthly Average**	**Daily Maximum**	**Monthly Average**	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
Flow *[50050]*	68,160 gpd *[07]*	138,000 gpd *[07]*	---	---	Continuous *[99/99]*	Recorder *[RC]*
TSS *[00530]*	17 lbs./day *[26]*	57 lbs./day *[26]*	30 mg/L *[19]*	100 mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
Oil & Grease *[00552]*	---	---	15 mg/L *[19]*	15 mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
Free Available Chlorine [(3)] *[50064]*	---	---	0.2 mg/L *[19]*	0.5 mg/L *[19]*	4/Week *[04/07]*	Grab *[GR]*
Temperature [(4)] *[00011]*	---	---	---	85° F *[15]*	Continuous *[99/99]*	Recorder *[RC]*
Total Chromium *[01034]*	0.1 lbs./day *[26]*	0.2 lbs./day *[26]*	0.2 mg/L *[19]*	0.2 mg/L *[19]*	1/Year *[01/YR]*	Grab *[GR]*
Total Zinc *[01092]*	0.6 lbs./day *[26]*	1.2 lbs./day *[26]*	1.0 mg/L *[19]*	1.0 mg/L *[19]*	1/Year *[01/YR]*	Grab *[GR]*
pH [(5)] *[00400]*	---	---	---	6.0 – 9.0 SU *[12]*	Continuous *[99/99]*	Recorder *[RC]*
Mercury (Total) [(6)] *[71900]*	---	---	72.5 ng/L *[3M]*	108.7 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 Page 5 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

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.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 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. **Priority Pollutants** – Pursuant to 40 CFR Part 423.13(d)(1), there must be no detectable levels of the 126 priority pollutants as specified in *Appendix A to Part 423 – 126 Priority Pollutants*.

3. **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.

4. **Temperature Monitoring** – Temperature monitoring for Outfall #001A is required during the months of June, July, and August of each year only.

5. **pH Range Limitation** – The total time during which the pH values are outside the required range of 6.0 – 9.0 SU must not exceed 7 hours and 26 minutes in any calendar month and no individual excursion from the 6.0 – 9.0 SU range limitation may exceed 60 minutes in duration.

6. **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 CMR 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 a Department report form for mercury test results. Compliance with the monthly average

SPECIAL CONDITIONS

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

Footnotes:

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.

C. 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 January 11, 2016, 2) the terms and conditions of this permit; and 3) only from Outfall #001A. 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.

D. NOTIFICATION REQUIREMENTS

In accordance with Standard Condition D, the permittee must notify the Department of the following:

1. Any introduction of pollutants into the wastewater collection and treatment system from an indirect discharger in a primary industrial category discharging process wastewater; and;

SPECIAL CONDITIONS

D. NOTIFICATION REQUIREMENTS (cont'd)

2. 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.

3. 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.

E. OPERATIONS AND MAINTENANCE (O&M) PLAN

The permittee must maintain a current written comprehensive Operation & Maintenance (O&M) Plan for the facility. The plan must provide a systematic approach by which the permittee must 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.

By December 31 of each year, **or within 90 days of any process changes or minor equipment upgrades,** the permittee must evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan must be kept on-site at all times and made available to Department and USEPA personnel upon request.

Within 90 days of completion of new and or substantial upgrades of the wastewater treatment facility, the permittee must submit the updated O&M Plan to their Department inspector for review and comment.

F. 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-

SPECIAL CONDITIONS

F. MONITORING AND REPORTING (cont'd)

assigned inspector (unless otherwise specified by the Department) at the following address:

Department of Environmental Protection
Northern Maine Regional Office
Bureau of Water Quality
Division of Water Quality Management
1235 Central Park Drive
Skyway Park
Presque Isle, Maine 04769

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.

G. REOPENING OF PERMIT FOR MODIFICATION

In accordance with 38 M.R.S.A. § 414-A(5) and upon evaluation of the tests results in 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.

H. 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.

CONTENTS

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).

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 if 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 MAINTENACE 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

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.

(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.

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.

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

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).

(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.

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 contaminates 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.

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.

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

MERCURY REPORT - Clean Test Only

Data Date Range: 05/Feb/2001-05/Feb/2016

Facility: **REENERGY FT FAIRFIELD LP** **Permit Number:** ME0023329

Max (ug/l): 0.0891 **Average (ug/l):** 0.0169

Sample Date	Result (ng/l)	Lsthan	Clean
05/11/2009	7.15	N	T
11/03/2009	89.10	N	T
04/19/2010	7.73	N	T
11/29/2010	4.99	N	T
05/03/2011	11.50	N	T
11/15/2011	25.80	N	T
04/04/2012	3.49	N	T
06/21/2013	3.65	N	T
03/06/2014	7.20	N	T
10/20/2015	8.10	N	T

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
MAINE WASTE DISCHARGE LICENSE

Proposed Draft FACT SHEET

DATE: **APRIL 7, 2016**

PERMIT NUMBER: **ME0023329**

WASTE DISCHARGE LICENSE: **W007365-5S-I-R**

NAME AND ADDRESS OF APPLICANT:

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

COUNTY: **AROOSTOOK**

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

REENERGY FORT FAIRFIELD
CHENEY GROVE ROAD FORT FAIRFIELD, ME. 04742

RECEIVING WATER/CLASSIFICATION: **AROOSTOOK RIVER/CLASS C**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

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

1. APPLICATION SUMMARY

a. Application: On January 11, 2016, the Department of Environmental Protection (Department) accepted as complete for processing an application from ReEnergy Fort Fairfield, LLC (ReEnergy) for renewal of combination Waste Discharge License (WDL) # W007365-5S-F-R / Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0023329, which was issued by the Department on May 24, 2011, for a five-year term.

1. APPLICATION SUMMARY

The 5/24/11 MEPDES permit authorized the authorized the monthly average discharge of up to 68,160 gallons per day (GPD) and a daily maximum of up to 138,000 GPD of non-contact cooling water, wood fuel storage area leachate, site runoff, cooling tower mist and storm water from a treatment lagoon non-contact cooling water, facility process wastewater, woodpile leachate, site runoff, and storm water runoff from a wood-fired electrical generating station to the Aroostook River, Class C, in Fort Fairfield, 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.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001);

2. Reduces the monitoring frequency for free available chlorine (FAC) from 1/Day to 4/Week;

3. Reduces the monitoring frequency for zinc and chromium from 1/Quarter to 1/Year; and

4. Eliminates conditions and authorization for storm water discharges. Storm water associated with this industrial facility must be covered under the Department's *Multi-Sector General Permit Stormwater Associated with Industrial Activity*, MER050000.

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

June 21, 1996 – The U.S. Environmental Protection Agency (USEPA) issued a renewal of National Pollutant Discharge Elimination System (NPDES) permit #ME0023329 to the Aroostook Valley Electric Company (AVEC). The 6/21/00 permit superseded the NPDES permit issued to this facility by the USEPA on September 29, 1987 (earliest NPDES permit on file with the Department).

May 23, 2000 – Pursuant to Maine law, 38 M.R.S.A. §420 and §413 and Department rule, 06-096 CMR 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 # W007365-57-B-R by establishing interim monthly average and daily maximum

2. PERMIT SUMMARY (cont'd)

effluent concentration limits of 72.5 parts per trillion (ppt) and 108.7 ppt, respectively, and a minimum monitoring frequency requirement of 2 tests per year for mercury.

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 ME0023329 (same as the NPDES permit) will be the primary reference number for the facility.

April 23, 2001 – The Department issued WDL #W007365-5O-C-R / MEPDES permit #ME0023329 to AVEC for a five year term.

February 7, 2006 – Boralex Fort Fairfield, Inc. submitted a timely and complete General Application to the Department for transfer (from AVEC) and renewal of the 4/2301 MEPDES permit. The application was accepted for processing on February 10, 2006 and was assigned WDL #W007365-5S-D-R / MEPDES #ME0023329.

May 2, 2006 – Boralex submitted to the Department, for review and acceptance, a Notice of Intent (NOI) to comply with the Maine Multi-Sector General Permit (MSGP) for Storm Water Discharges Associated with Industrial Activity. The Department confirmed coverage under the MSGP by assigning a facility number of MER05B842 in a letter dated February 8, 2007.

June 16, 2006 – The Department issued combination MEPDES permit/WDL #W007365-5S-D-R, for a five-year term.

May 24, 2011 – The Department issued MEPDES permit #ME0023329 / WDL #W007365-5M-F-R for a five-year term.

January 6, 2016 – The permittee submitted a timely and complete General Application to the Department for renewal of the May 24, 2011 permit (including subsequent minor permit revisions and permit modifications). The application was accepted for processing on January 11, 2016 and was assigned WDL #W007365-5M-I-R / MEPDES #ME0023329.

c. Source Description: ReEnergy Fort Fairfield, LLC. operates a 30-megawatt steam electric power generating station fueled by biomass wood fuels in the Town of Fort Fairfield, Maine. The facility is owned by ReEnergy Holdings, LLC. of Latham, New York. A map showing the location of the facility and the receiving water is included as Fact Sheet **Attachment A.**

Biomass fuel utilized at ReEnergy Fort Fairfield consists of conventional wood fuel which is processed off-site. Non-wood related productions are not utilized

2. PERMIT SUMMARY (cont'd)

or permitted for use at the Fort Fairfield facility. Biomass fuel is delivered by enclosed trailer truck to the facility. The facility's fuel receiving system consists of two truck dumpers. Fuel is conveyed to the fuel storage areas by way of fuel yard equipment and is then transferred via fuel reclaiming equipment, additional covered conveyors, and an enclosed steam boiler feed system to the boiler furnace.

The facility's ash removal system consists of an ash conditioning system, enclosed conveyors, and an enclosed ash storage system.

d. Wastewater Treatment:

Power Plant

Ground water (drilled well source) and municipal water are utilized for cooling tower and process make-up water. Process make-up water is conveyed through a water treatment plant consisting of an activated carbon filter (to remove chlorine and organics) a cation exchanger, an anion exchanger, and a mixed media exchanger. Demineralized water is stored in a 26,000-gallon demineralized water storage tank and is subsequently transferred to a 26,000-gallon condensate storage tank for use as make-up water for the boiler system. Boiler feedwater is treated with di- and tri-sodium phosphate (to reduce scale forming minerals) and caustic (to maintain boiler water pH). The boiler system maintains a continuous blowdown of approximately 5 gallons per minute (GPM), which is directed to a boiler blowdown tank for condensation. During periods of cool weather, boiler blowdown is directed to the cooling tower system to assist in ice reduction of the cooling tower. During periods of warm weather, the blowdown is directed to a 740,000- gallon capacity wastewater treatment/detention lagoon for settling and thermal impact reduction.

The activated carbon filters are cleaned routinely by backwashing to remove accumulated contaminants. Cation resin regeneration is performed utilizing a weak sulfuric acid solution followed by a rinse cycle using demineralized water to remove any residual acid. The anion resin regeneration is performed utilizing a weak caustic solution followed by a rinse cycle using demineralized water. Mixed exchanger bed regeneration utilizes both sulfuric acid and caustic solutions. Wastewater generated by these processes is conveyed to a 7,900-gallon capacity, enclosed neutralization tank where acid or caustic are added for pH neutralization. Neutralized wastewater is conveyed to the facility's wastewater lagoon.

Cooling tower make-up water is treated through a decarbonation process to reduce the concentration of scale-forming mineral contaminants and alkalinity in the make-up water. The weak acid cation exchanger utilizes carboxylic resin, which must be regenerated with a weak sulfuric acid solution to remove mineral

2. PERMIT SUMMARY (cont'd)

contaminants. Wastewater generated by this process is directed to a 19,000-gallon capacity, enclosed neutralization tank for pH adjustment through addition of a caustic solution, aeration, and recirculation. Neutralized wastewater is conveyed to the facility's wastewater lagoon. Circulation make-up water is also treated with phosphates and dispersants to control scale production and a bromine- based biocide for control of biological growth. An algaecide is only used when excessive growth occurs, typically during the summer months. The cooling water system is a closed cycle recirculating system with an induction type cooling water tower. The system maintains a continuous blowdown of approximately 18 gpm, which is directed to an auxiliary cooling water system as its cooling medium. Auxiliary system blowdown is conveyed to the facility's wastewater lagoon. Incidental amounts of cooling tower mist are deposited around the facility and may be discharged with storm water runoff from the site.

ReEnergy was previously authorized to discharge stormwater from the site under the preceding MEPDES permit. However, in a letter from the Department dated August 27, 2015, ReEnergy is now required to attain coverage under the Storm Water Multi-Sector General Permit for any storm water discharge.

Sanitary waste water generated at ReEnergy is conveyed to the Fort Fairfield Utilities District for treatment.

A process flow schematic for the facility is included as Fact Sheet **Attachment B.**

3. CONDITIONS OF PERMIT

Conditions of licenses, 38 M.R.S.A. § 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.A. § 420 and Department rule *Surface Water Toxics Control Program,* 06-096 CMR 530 (effective March 21, 2012), require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants,* 06-096 CMR 584 (effective July 29, 2012), and that 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.A. § 467(15)(C)(1)(f) classifies the Aroostook River (From a point located 100 yards downstream of the intake of the Caribou water supply to the international boundary, including all impoundments) at the point of discharge as Class C waters. *Standards for classification of fresh surface waters,* 38 M.R.S.A. § 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 16.6 mile long main stem segment of the Aroostook River from 100 yards downstream of the Caribou water supply intake and the international boundary (Assessment Unit ID ME0101000413_148R02) as, "Category 2: Rivers and Streams Attaining Some Designated Uses – Insufficient Information for Other Uses." The comment states "New Assessment Unit, created during Aroostook River resegmentation in accordance with water classification (38 MRSA Section 465)."

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 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.A. § 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 CMR 519.

It should be noted that the 2014 Draft Integrated Water Quality Monitoring and Assessment Report contains a new listing for the Aroostook River for the area including the discharge. The new listing will be in "Category 5-A: Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B through 5-D (TMDL Required)" for pH. No effluent limitations or monitoring requirements are proposed at this time due to the nature of the discharge in relation to the impairment, however, upon approval of this listing by the USEPA, the Department may reopen the permit and establish effluent limitations and monitoring requirements to ensure the discharge does not cause or contribute to non-attainment of Class C water quality standards, as allowed under permit Special Condition *G. Reopening Of Permit For Modification*.

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 discharge flow limitations of 68,160 gallons per day (gpd) and 138,000 gpd, respectively, for Outfall #001A. These limits were based on 1) the 68,160 gpd of wastewater generated by boiler system make-up water (non-contact cooling water), boiler blowdown and system wash water, cooling tower make-up water (non-contact cooling water), cooling tower blowdown, ion exchange backwash wastewater, and leachate from the wood storage area; and 2) the 69,000 gpd of storm water runoff from approximately 13.2 acres of developed area on the facility grounds. The non-process waste streams and the storm water runoff are conveyed and commingled in the facility's wastewater lagoon prior to discharge. Thus, the daily maximum discharge limitation of 138,000 gpd is based on the approximately 69,000 gpd of non-process wastewater plus the approximately 69,000 gpd of storm water runoff. This permitting action is carrying forward both the monthly average and daily maximum discharge flow limitations as they remain representative of wastewater flows conveyed to Outfall #001A. This permitting action is carrying forward the continuous discharge flow monitoring requirement.

A review of the monthly Discharge Monitoring Report (DMR) data for the period June 2011 – January 2016 indicates the following:

Flow (n=46)

Value	Limit (gpd)	Range (gpd)	Mean (gpd)
Monthly Average	68,160	26,862 – 60,968	47,119
Daily Maximum	138,000	47,023 – 105,986	68,319

c. Dilution Factors: Dilution factors associated with the permitted discharge flow of 138,000 GPD (0.138 million gallons per day, MGD) from the ReEnergy facility were established in accordance with freshwater protocols established in *Surface Water*

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

Toxics Control Program, 06-096 CMR 530 (last amended March 21, 2012) and were calculated as follows:

Acute ¼ 1Q10 = 41.9 cfs => $\frac{(41.9 \text{ cfs})(0.6464) + 0.138 \text{ MGD}}{0.138 \text{ MGD}} = 197:1$

Acute: 1Q10 = 167.5 cfs => $\frac{(167.5 \text{ cfs})(0.6464) + 0.138 \text{ MGD}}{0.138 \text{ MGD}} = 786:1$

Chronic: 7Q10 = 197.0 cfs => $\frac{(197.0 \text{ cfs})(0.6464) + 0.138 \text{ MGD}}{0.138 \text{ MGD}} = 924:1$

Harmonic Mean = 591.0 cfs => $\frac{(591.0 \text{ cfs})(0.6464) + 0.138 \text{ MGD}}{0.138 \text{ MGD}} = 2{,}769:1$

06-096 CMR 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 established technology-based monthly average concentration and mass limits of 30 mg/L and 17 lbs./day, respectively, for TSS. The previous permitting action established technology-based daily maximum concentration and mass limits of 100 mg/L and 57 lbs./day, respectively, for TSS. The concentration limitations are based on the best practicable control technology currently available (BPT) effluent guidelines promulgated at 40 CFR Part 423.12(b)(3) and are being carried forward in this permitting action. The technology based mass limits are also being carried forward in this permitting action and were derived as follows:

Monthly Average: (30 mg/L)(8.34)(0.068160 MGD) = 17 lbs./.day
Daily Maximum: (100 mg/L)(8.34)(0.068160 MGD) = 57 lbs./day

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

A review of the DMRs for the period June 2011 – January 2016 indicates the following:

TSS Mass (n=46)

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	17	0 - 20	3
Daily Maximum	57	1 - 20	3

TSS Concentration (n=54)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	2 - 41	7
Daily Maximum	100	2 - 41	7

The previous permitting action established a minimum monitoring frequency requirement of once per month for TSS, which is being carried forward in this permitting action as a Department best professional judgment determination of the minimum level of monitoring necessary to assess compliance with the numeric limitations established in this permitting action.

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 best practicable treatment (BPT) limitation found in 40 CFR 423.12(b)(7).

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

FAC Concentration (n=55)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	0.2	0.01 – 0.05	0.01
Daily Maximum	0.5	0.01 – 0.08	0.03

Due to the consistent nature of the results, this permitting action is reducing the monitoring frequency from 1/Day to 4/Week.

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.

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

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

Oil & grease Concentration (n=55)

Value	Limit (mg/L)	Range (mg/L)
Monthly Average	15	<6 – 5
Daily Maximum	20	<6 – 5

g. Temperature: The previous permitting action established a daily maximum temperature limitation of 85 degrees Fahrenheit (85˚F) and specified that compliance with this limitation will be based on continuous temperature measurements taken within the wastewater lagoon during the critical water season months of June, July and August of each year. *Regulations Relating to Temperature,* 06-096 CMR 582 (effective May 4, 1996) state, in part,

> "No discharge of pollutants shall cause the ambient temperature of any freshwater body, as measured outside a mixing zone, to be raised more than 5 degrees Fahrenheit or more than 3 degrees Fahrenheit in the epilimnion (upper mixed layer) of any lake or pond. In no event shall any discharge cause the temperature of any freshwater body to exceed 85 degrees Fahrenheit at a point outside a mixing zone established by the Board, nor shall such discharge cause the temperature of any waters to exceed the U.S. Environmental Protection Agency's national ambient water quality criteria established to protect all species of fish that are indigenous to the receiving waters at any point outside a mixing zone established by the Board. Site specific criteria, generated from a study conducted according to DEP approved methods for indigenous species of fish as defined in 38 M.R.S.A. Sec. 466, may be substituted for national ambient water quality criteria, so long as the site specific criteria are no less protective of species found to be indigenous to those waters, and so long as the public participation requirements of federal and state law, including those found at 40 CFR Part 25, have been met. When the ambient temperature of any body of water naturally exceeds the limits set forth in this section, no thermal discharge may be allowed which alone or in combination with other discharges would raise the ambient temperature of the receiving water more than 0.5 Degrees Fahrenheit above the temperature which would naturally occur outside a mixing zone established by the Board."

In the previous permitting action, the Department had determined that with an effluent temperature of 85˚F, average discharge rate of 68,160 GPD, and a 7Q10 river flow of 197 cubic feet per second, the calculated river potential change (ΔT) would be 0.01 degrees F. This ΔT is less than the 0.5 degrees F threshold established in Chapter 582 and, thus, is protective of receiving water quality and designated uses.

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

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

Temperature (n=15)

Value	Limit (ºF)	Range (ºF)	Mean (ºF)
Daily Maximum	85	70 – 85	78

This permitting action is carrying forward the continuous lagoon temperature monitoring requirement during the months of June, July and August of each year.

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 continuous monitoring requirement.

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

pH (n=55)

Value	Limit (SU)	Range (SU)
Daily Maximum	6.0 – 9.0	7.0 – 9.0

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 0.1 lbs./day and 0.2 lbs./day respectively pursuant to *Waste Discharge License Conditions*, 06-096 CMR 523(6)(f)(2). The mass limitations for total chromium were derived as follows:

Monthly Average Chromium Mass Limit: (0.2 mg/L)(8.34)(0.068160 MGD) = 0.1 lbs./.day Daily Maximum Chromium Mass Limit: (0.2 mg/L)(8.34)(0.138 MGD) = 0.2 lbs./day

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

Chromium Mass (n=18)

Value	Limit (lbs./day)	Range (lbs./day)	Average (lbs./day)
Monthly Average	0.1	0.0 – 0.0	0.0
Daily Maximum	0.2	0.0 – 0.0	0.0

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

Chromium Concentration (n=18)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	0.2	0.0 – 0.0	0.0
Daily Maximum	0.2	0.0 – 0.0	0.0

The previous permitting action established a minimum monitoring frequency requirement of once per calendar quarter for total chromium. This permitting action is reducing the minimum monitoring frequency to 1/Year 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 0.6 lbs./day and 1.2 lbs./day respectively pursuant to *Waste Discharge License Conditions*, 06-096 CMR 523(6)(f)(2). The mass limitations for total zinc were derived as follows:

Monthly Average Zinc Mass Limit: (1.0 mg/L)(8.34)(0.068160 MGD) = 0.6 lbs./.day
Daily Maximum Zinc Mass Limit: (1.0 mg/L)(8.34)(0.138 MGD) = 1.2 lbs./day

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

Zinc Mass (n=13)

Value	Limit (lbs./day)	Range (lbs./day)	Average (mg/L)
Monthly Average	0.6	0.0 – 0.0	0.0
Daily Maximum	1.2	0.0 – 0.0	0.0

Zinc Concentration (n=13)

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	1.0	0.0 – 0.1	0.0
Daily Maximum	1.0	0.0 – 0.1	0.0

The previous permitting action established a minimum monitoring frequency requirement of once per calendar quarter for total zinc. This permitting action is reducing the minimum monitoring frequency to 1/Year based on a Department best professional judgment.

k. Mercury: Pursuant to 38 M.R.S.A. § 420 and 38 M.R.S.A. § 413 and 06-096 CMR 519, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL # W007365-57-B-R by establishing interim monthly average and daily maximum effluent concentration limits

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

of 72.5 ppt and 108.7 ppt, respectively, and a minimum monitoring frequency requirement of 2 tests per year for mercury.

38 M.R.S.A. § 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 October 2015 is as follows.

Mercury (N = 9)

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Monthly Average	72.5	3.49 – 89.10	16.9
Daily Maximum	108.7		

On February 6, 2012, the Department issued a minor revision to the May 24, 2011 permit thereby revising the minimum monitoring frequency requirement from twice per year to once per year pursuant to 38 M.R.S.A. § 420(1-B)(F). This minimum monitoring frequency is being carried forward in this permitting action.

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 Presque Isle Star Herald newspaper on or about January 6, 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 CMR 522 (effective January 12, 2001).

9. DEPARTMENT CONTACTS

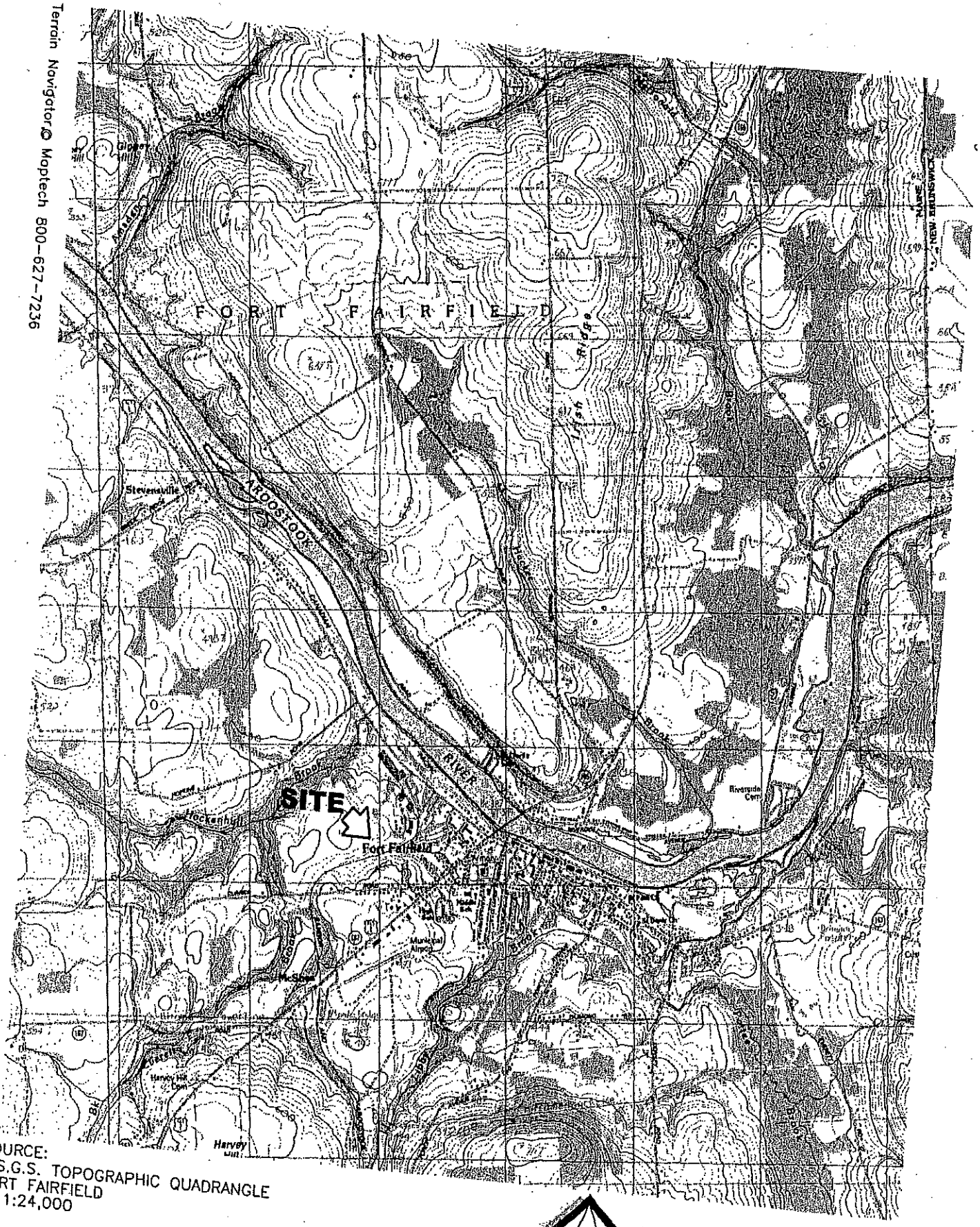
Additional information concerning this permitting action may be obtained from, and written comments sent to:

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

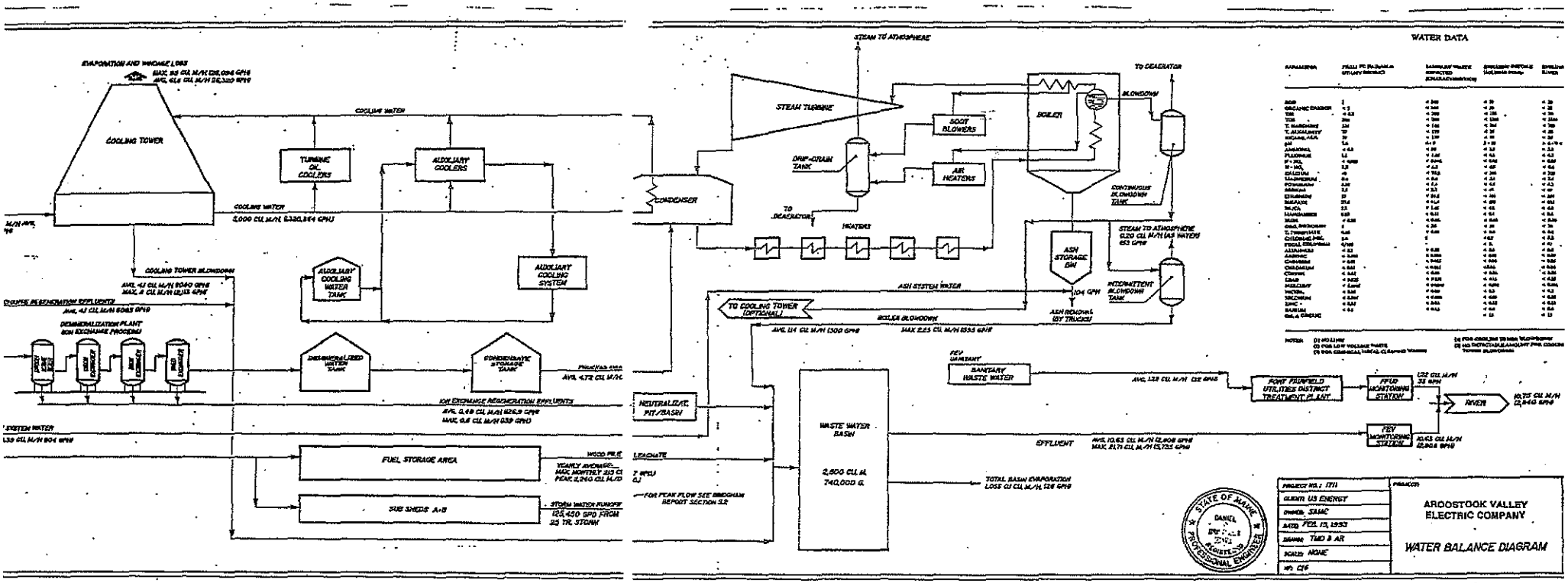


SOURCE:
U.S.G.S. TOPOGRAPHIC QUADRANGLE
FORT FAIRFIELD
© 1:24,000

CES
1978
ENGINEERS • SURVEYORS
465 So. Main Street, P.O. Box 639, Brewer, ME 04412
Tel: 207-989-4824 Fax 207-989-4881

FORT FAIRFIELD, MAINE
LOCATION MAP

ATTACHMENT B


EVAPORATION AND WINDAGE LOSS
COOLING TOWER
COOLING WATER
TURBINE OIL COOLERS
AUXILIARY COOLERS
COOLING WATER
2,000 CU.M./H. (8,320,864 GPH)
COOLING TOWER BLOWDOWN
AUXILIARY COOLING WATER TANK
AUXILIARY COOLING SYSTEM
DEMINERALIZATION PLANT
DEMINERALIZED WATER TANK
CONDENSATE STORAGE TANK
ION EXCHANGE REGENERATION EFFLUENTS
FUEL STORAGE AREA
WOOD PILE
SUB SHEDS A-B
STORM WATER RUNOFF
125,450 GPD FROM 25 YR. STORM
STEAM TO ATMOSPHERE
STEAM TURBINE
SOOT BLOWERS
BOILER
AIR HEATERS
DRUM-DRUM TANK
CONDENSER
TO DEAERATOR
HEATERS
BLOWDOWN
CONTINUOUS BLOWDOWN TANK
STEAM TO ATMOSPHERE
ASH STORAGE BIN
INTERMITTENT BLOWDOWN TANK
ASH SYSTEM WATER
TO COOLING TOWER (OPTIONAL)
BOILER BLOWDOWN
ASH REMOVAL (BY TRUCKS)
FGD LIMESTONE
SANITARY WASTE WATER
NEUTRALIZATION PIT/BASIN
WASTE WATER BASIN
2,800 CU.M. 740,000 G.
EFFLUENT
FORT FAIRFIELD UTILITIES DISTRICT TREATMENT PLANT
FFUD MONITORING STATION
RIVER
FGD MONITORING STATION
LEACHATE
TOTAL BASIN EVAPORATION LOSS 0.1 CU.M./H. (26 GPM)
WATER DATA
AROOSTOOK VALLEY ELECTRIC COMPANY
WATER BALANCE DIAGRAM
PROJECT NO. : 1711
CLIENT: US ENERGY
DRAWN: SSMC
DATE: FEB. 15, 1993
DRAWING: TWO B AR
SCALE: NONE
NO. CHK
STATE OF MAINE DANIEL PROFESSIONAL ENGINEER