STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

November 9, 2018

Mr. Scott Reed
Environmental Manager
ND OTM, LLC
35 Hartford Street
Rumford, ME. 04276
e-mail: scott.reed@us.ndpaper.com

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0002020
Maine Waste Discharge License (WDL) #W002226-5N-S-M
Proposed Draft Permit Modification

Dear Mr. Reed:

Enclosed is a **proposed draft** MEPDES permit and Maine WDL **modification** 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 document 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.

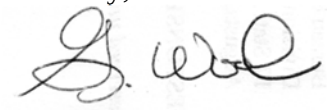
Beginning today, Friday, November 9, 2018, the Department is making the draft permit available for a 30-day public comment period. All comments on the proposed draft permit must be received in the Department of Environmental Protection office on or before the close of business **Monday, December 10, 2018**. Failure to submit comments in a timely fashion will result in the final permit document being issued as drafted.

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
gregg.wood@maine.gov

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

Sincerely,



Gregg Wood
Division of Water Quality Management
Bureau of Water Quality

Enc.

cc: Gary Brooks, MDEP/EMRO
Lori Mitchell, MDEP/CMRO
Damion Houlihan, USEPA
Shelley Puleo, USEPA
Marelyn Vega, USEPA
Maine Dept. Inland Fisheries and Wildlife Environmental Review
Maine Dept. Marine Resources Environmental Review
Daniel Kuznierz, PIN

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

DEPARTMENT ORDER

IN THE MATTER OF

ND OTM, LLC		) MAINE POLLUTANT DISCHARGE
INDUSTRIAL MANUFACTURER		) ELIMINATION SYSTEM PERMIT
OLD TOWN, PENOBSCOT COUNTY, MAINE		) AND
ME0002020		) WASTE DISCHARGE LICENSE
W002226-5N-S-M	**APPROVAL**	) **MODIFICATION**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, *et. seq*. and *Conditions of Licenses*, 38 M.R.S., Section 414-A *et seq*., and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of ND OTM LLC (ND/permittee hereinafter) with its supportive data, agency review comments, and other related material on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

ND has filed an application with the Department to modify Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0002020/Maine Waste Discharge License (WDL) #W002226-5O-O-R that was issued by the Department on October 12, 2016. In this permitting action, ND, which recently acquired the mill property and intends to restart pulp production, seeks a reversion to most of the provisions of the May 19, 2011, renewal permit issued to Red Shield Acquisition LLC, as updated to reflect current river conditions and the company's current plans for re-start of the mill.

ND's mill located in Old Town, Maine is currently capable of manufacturing an average of 566 tons/day bleached kraft market pulp, or an equivalent amount of unbleached pulp. Up until 2006, the mill also produced 257 tons/day bleached kraft tissue products. Combined with the existing capacity regained by re-conversion of existing pulp mill equipment from a bio-refinery use to conventional kraft pulping, the existing pulping capacity is approximately 800 tons/day. ND intends to initially restart pulping operations at the mill's current capacity. Once normal operations are achieved, ND will evaluate market conditions and product opportunities to determine when and how to begin operating the facility at its full existing pulping capacity, and making the pulp and paper grades most optimal for ND's strategic plans. The 5/19/11 MEPDES permit authorized the discharge up to a monthly average of 24.4 million gallons per day (MGD) of treated process waters (including storm water and transported wastes), and other waste waters associated with the pulp and papermaking process, non-contact cooling waters, turbine condensing waters and filter backwash waters from three outfalls to the Penobscot River. In addition to the routine waste waters discharged, the permit authorized discharges associated with or resulting from essential maintenance, regularly scheduled maintenance during start-up and

APPLICATION SUMMARY (cont'd)

shutdown, treated incidental spills of sanitary waste waters, treated landfill leachate from the Juniper Ridge Landfill, general housekeeping waste waters, treated spills and releases (whether anticipated or unanticipated) from anywhere in the permitted facilities, as well as wastewater from the commercial LaBree's bakery, and filter backwash from the Orono-Veazie Water District. The facility's waste water collection and treatment systems are also used for elementary neutralization pursuant to Maine law, 38 M.R.S., §1319.1, the facility will be seeking coverage for storm water outfalls under a MEPDES Multi-Sector General Permit for Stormwater Discharges Associated With Industrial Activity issued by the Department on December 7, 2016.

The 5/19/11 permit was transferred from Red Shield Acquisition, LLC in a Department order issued on December 5, 2014. A total phosphorus limit was established in that permit based on then-current river conditions. The compliance date was extended to May 19, 2016, in a permit modification issued to the then-new owner, Expera Old Town LLC by the Department on May 19, 2015. However, on February 2, 2016, the Department issued another permit modification to Expera Old Town to reflect both changes to the mill's operations as a result of poor economic conditions and the fact that a total phosphorus limit was no longer necessary as water quality monitoring on the Penobscot River indicated that the river was meeting the standards of its classification. Then on October 12, 2016, in a renewal order, the Department issued the current MEPDES Permit #ME0002020/WDL #W002226-5O-O-R to Expera's successor, MFGR, LLC. In that action the Department approved re-classifying the permit from a major facility to a minor facility, relying primarily on changes from the cessation of production at the facility. The department noted that "[s]hould the facility resume pulp or paper making operations…the classification for the facility may revert back to a major facility." ND is seeking authorization to discharge waste water associated with both pulping and the manufacturing of paper products as its long-term business plan is to fully utilize the existing pulping capacity of the existing mill equipment. ND seeks reversion to the 5/19/11 permit, updated as appropriate to reflect current river conditions and its proposed operations. Specifically, ND requests:

1. Reversion to the previously existing limitations for Outfall #001 on flow, temperature, pH, BOD, TSS and color;

2. Elimination of the total phosphorus monitoring and limitation for Outfall #001, consistent with the finding in the 2/16/16 modification;

3. Since ND's current plans are to only produce unbleached kraft pulp, language specifying that the 5/19/11 limitations and requirements associated with bleached kraft pulp production, including the requirement to participate when directed in the State's Surface Water Toxics Control Program, only take effect thirty (30) days after ND notifies the Department of its intent to resume bleached kraft production;

4. Monitoring-only requirements for Aluminum, Copper, and Lead, until a new DETOX model run confirms whether such requirements are still necessary; and

5. Reversion to the previously existing provisions relating to Outfalls #002, #003, and #004.

PERMIT SUMMARY

This permit is carrying forward all the terms and conditions of the 5/19/11 MEPDES permit except this permit is:

1. Eliminating the monthly average and daily maximum water quality based mass and concentration limitations for total aluminum, total copper and total lead as these limitations were based on a statistical evaluation of a discharge that is fundamentally different than the proposed discharge from the ND operation.

2. Establishing screening level whole effluent toxicity (WET), analytical chemistry and priority pollutant testing upon issuance of this permit modification. Surveillance level testing requirements will be established as appropriate after a statistical evaluation is completed by the Department on the screening test results as the proposed discharge ~~is discharge~~ is fundamentally different than the discharge from the MFGR operation.

3. Eliminating Special Condition M, *Ambient Water Quality Monitoring*, as the Department gathered sufficient information on the ambient water quality during the previous permit term resulting in the permit condition no longer being necessary.

4. Establishing a special condition requiring ND to notify the Department 30 days prior to commencing operations of bleaching operations at the facility.

5. Modifying the flow limitation for Outfall 001 from 24.4 MGD to "report only" for the term of the permit given the facility will be operating as a pulp mill only upon start up. The permittee and the Department will conduct a statistical evaluation on the flow data upon permit renewal to establish a representative flow limitation taking into account the present and future configuration of the facility and the waste water treatment plant design capacity.

6. Eliminating the limitation and monitoring requirements associated with the National Effluent Guidelines (NEG's) found in Title 40, Code of Federal Regulations (CFR) Part 445, *Landfills Point Source Category*, Subpart B, *RCRA Subtitle D Non-Hazardous Waste Landfill* given the landfill leachate is a minor waste stream in the effluent.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated November 9, 2018, 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, 38 M.R.S., Section 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) The standards of classification of the receiving water body are met or, 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 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.

ACTION

THEREFORE, the Department APPROVES the above noted application of the ND OTM LLC, to discharge treated process waste waters (including storm water and landfill leachate) , treated incidental spills of sanitary waste waters, general housekeeping waste waters, treated spills and releases (whether anticipated or unanticipated) from anywhere in the permitted facilities, which are also used for elementary neutralization pursuant to Maine law, 38 M.R.S., §1319.1, and other waste waters associated with the pulp and papermaking process, non-contact cooling waters, turbine condensing waters and filter backwash waters from three outfalls to the Penobscot River, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

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 effluent limitations and monitoring requirements.

3. This permit becomes effective upon the date of signature below and expires at midnight five (5) years thereafter. 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 CMR 2(21)(A) (last amended June 9, 2018)].

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

DONE AND DATED AT AUGUSTA, MAINE, THIS _____DAY OF _____, 2018.

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY:_____
Melaine Loyzim, Acting Commissioner

Date of initial receipt of application October 31, 2018.

Date of application acceptance October 31, 2018.

Date filed with Board of Environmental Protection _____

This Order prepared by Gregg Wood, Bureau of Water Quality

SPECIAL CONDITION

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Beginning the effective date of this permit, the permittee is authorized to discharge secondary treated process waste waters from **Outfall #001,** bleach plant effluent (internal waste stream) from **Outfall #100**, non-contact cooling waters from **Outfall #002** and filter backwash from **Outfall #003** to the Penobscot River. Such discharges shall be limited and monitored by the permittee as specified below. The italicized numeric values in brackets in the table below and the tables that follow are not limitations but are code numbers used by Department personnel to code Discharge Monitoring Reports (DMR's).

OUTFALL #001 – Secondary treated waste waters

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	Monthly Average	**Daily Maximum**	**Monthly Average**	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
	as specified	As specified	as specified	as specified	as specified	as specified
Flow (MGD) *[50050]*	Report MGD *[03]*	Report MGD *[03]*	---	---	Continuous *[99/99]*	Recorder*[RC]*
BOD_5 *[00310]*						
June 1 – Sept 30	7,500 lbs/day	18,000 lbs/day	---	---	5/Week	Composite
October 1 – May 31	8,850 lbs/day *[26]*	18,000 lbs/day *[26]*	---	---	5/Week *[05/07]*	Composite *[24]*
TSS *[00530]*						
June 1 – Sept 30	20,000 lbs/day	35,000 lbs/day	---	---	5/Week	Composite
October 1 – May 31	22,475 lbs/day *[26]*	42,000 lbs/day *[26]*	---	---	5/Week *[05/07]*	Composite *[24]*
Temperature *[00011]*						
June 1 – September 30	---	---	---	105°F *[15]*	1/Day *[01/01]*	Grab *[GR]*
October 1 – May 31	---	---	---	105°F *[15]*	1/Week *[01/07]*	Grab *[GR]*
pH (Std. Unit) *[00400]*	---		---	5.0 – 9.0 SU *[12]*	1/Day *[01/01]*	Grab *[GR]*

SPECIAL CONDITIONS

A. OUTFALL #001 – Secondary treated waste waters (cont'd)

Effluent Characteristic **Discharge Limitations** **Monitoring Requirements**

	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
	as specified	as specified	as specified	as specified	as specified	as specified
Color[1] *[00084]*	175 lbs/ton *[42]*	---	---	---	3/Week *[03/07]*	Composite *[24]*
Adsorbable Organic Halogen[2](AOX) *[03594]*	989 lbs/day *[26]*	1,510 lbs/day *[26]*	---	---	1/Quarter *[01/90]*	Composite *[24]*
Mercury (Total) [12] *[71900]*	---	---	18.5 ng/L *[3M]*	27.8 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*
Total Phosphorus[13] *[00665]* *June 1 – September 30, 2019*	Report lbs/day *[26]*	Report lbs/day *[26]*	Report ug/L *[19]*	Report ug/L *[19]*	1/Week *[01/07]*	Composite *[24]*

Footnotes: See pages 10-14 of this permit for applicable footnotes.

SPECIAL CONDITIONS

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

SCREENING LEVEL TESTING – Beginning when the monthly average bleached or unbleached pulp production is ≥400 tons/day or within one year from commencement of pulping operations, whichever is sooner, and then again beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter.

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity (WET) (4)						
A-NOEL						
Ceriodaphnia dubia [TDA3B] (Water Flea)	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Salvelinus fontinalis [TDA6F] (Brook trout)	---	---	---	Report % *[23]*	1/Year*[01/YR]*	Composite *[24]*
C-NOEL						
Ceriodaphnia dubia [TBP3B] (Water Flea)	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Salvelinus fontinalis [TBQ6F] (Brook trout)	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Priority Pollutants(6) *[50008]*	---		---	Report ug/L *[28]*	1/Year *[01/YR]*	Composite/Grab *[24/GR]*
Analytical Chemistry (5,6) *[51477]*	---		---	Report ug/L *[28]*	1/Quarter *[01/90]*	Composite/ Grab *[24/GR]*

SURVEILLANCE LEVEL TESTING – Will be established after the permittee has completed the screening level testing and the Department has conducted a statistical evaluation of the WET test results, priority pollutant scans and analytical chemistry test results. This permit may be reopened pursuant to Special Condition M of this permit to establish appropriate limitations and/or monitoring requirements.

Footnotes: See pages 10-14 of this permit for applicable footnotes.

SPECIAL CONDITIONS

OUTFALL #100- (Bleach Plant) – Internal Waste Stream - These limitations and requirements will take effect 30 days after ND notifies the Department that it is resuming bleached pulp manufacture.

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	Monthly Average	**Daily Maximum**	**Monthly Average**	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
Flow[7] *[50050]*	Report MGD *[03]*	Report MG *[03]*			1/Year *[01/YR]*	Calculate *[CA]*
2,3,7,8 TCDD (Dioxin) **(8)** *[34675]*	---	---	---	<10 pg/L[9]	1/Year	Measure
2,3,7,8 TCDF (Furan) **(9)** *[38691]*	---	---	---	<10 pg/L[9]	1/Year	Composite
Trichlorosyringol**(10)** *[73054]*	---	---	---	<2.5 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
3,4,5-Trichlorocatechol**(10)** *[73037]*	---	---	---	<5.0 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
3,4,,6- Trichlorocatechol**(10)** *[51024]*	---	---	---	<5.0 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
3,4,5-Trichloroguaiacol**(10)** *[61024]*	---	---	---	<2.5 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
3,4,6-Trichloroguaiacol**(10)** *[51022]*	---	---	---	<2.5 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
4,5,6-Trichloroguaiacol**(10)** *[73088]*	---	---	---	<2.5 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
2,4,5-Trichlorophenol**(10)** *[61023]*	---	---	---	<2.5 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
2,4,6-Trichlorophenol**(10)** *[34621]*	---	---	---	<2.5 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
Tetrachlorocatechol**(10)** *[79850]*	---	---	---	<5.0 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
Tetrachloroguaiacol**(10)** *[73047]*	---	---	---	<5.0 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
2,3,4,6-Tetrachlorophenol**(10)** *[77770]*	---	---	---	<2.5 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
Pentachlorophenol**(10)** *[39032]*	---	---	---	<5.0 ug/L[9] *[28]*	2/Year *[02/YR]*	Composite *[24]*
Chloroform**(11)** *[32106]*	6.56 #/day *[26]*	11.0 #/day *[26]*	---	---	---	---

SPECIAL CONDITIONS

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

Outfall #001 – Secondary treated waste waters
Footnotes:

Monitoring location– All effluent monitoring must be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics. Any change in sampling location must be approved by the Department in writing.

Sampling - Sampling and analysis must be conducted in accordance with; a) methods approved in 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 shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services for waste water testing. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S. § 413 or laboratory facilities that analyze compliance samples in-house are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000).

(1) **Color** – The limitation is a calendar quarterly average limitation. Quarterly results must be reported in the monthly DMR's for the months of March, June, September and December of each calendar year. The permittee must monitor the true color (at a pH of 7.6 S.U) in the effluent from Outfall #001 at a minimum of three (3) times per week. The calculated mass discharged, expressed as lbs/ton of unbleached pulp produced (calculated by multiplying the bleached tonnage by a factor of 1.05% to account for shrinkage), must be based on air-dried tons of brown stock entering the bleach plant. Where discharge monitoring is required when production is less than 50%, the resulting data must be reported as a daily measurement but not included in computation of averages, unless specifically authorized by the Department. A color pollution unit is equivalent to a platinum cobalt color unit as described in NCASI Technical Document #803. A pound of color is defined as the number of color pollution units multiplied by the volume of effluent discharged in million gallons per day multiplied by 8.34.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Footnotes:

(2) **AOX** – Limitations and monitoring requirements to begin 30 days after permittee notifies the Department that it intends to resume bleached kraft production. The analytical method to be used to determine absorbable organic halogens must be EPA Method 1650 for which a ML (Minimum Level) of 20 ug/l must be attained. The ML is defined as the level at which the analytical system gives recognizable signals and an acceptable calibration point.

(3) **Reserved**

(4) **Whole effluent toxicity (WET) testing** – Definitive WET testing is a multi-concentration testing event [a minimum of five dilutions bracketing the critical acute (modified acute) and chronic dilution of 2.9% and 0.6% respectively], which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points.

(a) Screening level testing – Beginning when the monthly average bleached or unbleached pulp production is ≥400 tons/day or within one year from commencement of pulping operations, whichever is sooner, and then again beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter, the permittee must conduct screening level WET testing at a minimum frequency of once per year (1/Year) on the water flea and the brook trout.

(b) Surveillance level testing - Will be established as appropriate after the permittee has completed the screening level testing and the Department has conducted a statistical evaluation on the screening level WET results.

Once received by the permittee, WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, the permittee may review the toxicity reports for up to 10 business days after receiving the test results from the laboratory conducting the testing before submitting them. The permittee must evaluate test results being submitted and identify to the Department possible exceedances of the critical acute and chronic water quality thresholds of 2.9% and 0.6%, respectively.

See **Attachment A** of this permit for a copy of the Department's WET report form.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Footnotes:

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following USEPA methods manuals.

a. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, Fourth Edition, October 2002, EPA-821-R-02-013.

b. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, EPA-821-R-02-012.

The permittee is also required to analyze the effluent for the parameters specified in the WET chemistry section, and the parameters specified in the analytical chemistry section of the form in **Attachment B** of this permit each time a WET test is performed.

(5) Analytical Chemistry Refers to a suite of chemical tests in **Attachment B** of this permit.

(a) Screening level testing – Beginning when the monthly average bleached or unbleached pulp production is ≥400 tons/day or within one year from commencement of pulping operations, whichever is sooner, and then again beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter, the permittee must conduct screening level analytical chemistry testing at a minimum frequency of once per quarter (1/Quarter).

(b) Surveillance level testing - Will be established as appropriate after the permittee has completed the screening level testing and the Department has conducted a statistical evaluation on the analytical chemistry test results.

(6) Priority Pollutant Testing – Priority pollutant testing refers to analysis for levels of priority pollutants listed in **Attachment B** of this permit.

(a) Screening level testing – Beginning when the monthly average bleached or unbleached pulp production is ≥400 tons/day or within one year from commencement of pulping operations, whichever is sooner, and then again beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter, the permittee must conduct screening level analytical chemistry testing at a minimum frequency of once per year (1/Year).

(b) **Surveillance level** priority pollutant testing is not required pursuant to Department rule 06-096 CMR Chapter 530 Section 2.D.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Footnotes:

Analytical chemistry and priority pollutant testing must be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, when applicable, and must be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve the most current minimum reporting levels of detection as specified by the Department.

Once received by the permittee, analytical chemistry and priority pollutant test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the laboratory reports for up to 10 business days after receiving the test results from the laboratory conducting the testing before submitting them. The permittee must evaluate test results being submitted and identify to the Department, possible exceedances of the acute, chronic or human health AWQC as established in Chapter 584. For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "NODI-9" monitoring not required this period.

(7) Bleach plant flow- Must be calculated on the same day(s) of the month that the bleach plant effluent is sampled for 2,3,7,8 TCDD (Dioxin), 2,3,7,8 TCDF (Furan), twelve (12) chlorinated phenolic compounds or chloroform. Limitations and monitoring requirements to begin 30 days after permittee notifies the Department that it intends to resume bleached kraft production.

(8) 2,3,7,8 TCDD (Dioxin) & 2,3,7,8 TCDF (Furan) – The analytical method to be used to determine the concentrations of dioxin and furan shall be EPA Method 1613B. Each composite sample must consist of a minimum of six (6) grab samples taken every four (4) hours from both the acid and alkaline sewers or one flow proportioned composite sample from a continuous automatic sampling device. Limitations and monitoring requirements to begin 30 days after permittee notifies the Department that it intends to resume bleached kraft production.

(9) Minimum Levels (ML's) - The limitations established in this permitting action for dioxin, furan and the 12 chlorinated phenolic compounds are equivalent to the ML's established for EPA Methods 1613 and 1653 respectively. Compliance will be based on the ML's as listed in Special Condition A of this permit.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Footnotes:

(10) 12 Chlorinated phenolic compounds - The analytical method to be used to determine the concentrations of these compounds shall be EPA Method 1653. Limitations and monitoring requirements to begin 30 days after permittee notifies the Department that it intends to resume bleached kraft production.

(11) Chloroform – The preferred analytical method to be used for chloroform is EPA Method 1624B for which a ML of 10 ug/l shall be attained. Other approved EPA methods are 601 and 624, and Standard Method 6210B and 6230B. If required to do so, the permittee must collect separate grab samples from the acid and alkaline bleach plant filtrates for chloroform analysis. Samples to be analyzed for chloroform may be taken over a 32-hour period where a minimum of six (6) grab samples are collected, each grab sample being at least four (4) hours apart but no more than 16 hours apart. Limitations and monitoring requirements to begin 30 days after permittee notifies the Department that it intends to resume bleached kraft production.

(12) 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 C** of this permit for a Department report form 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.

(13) Total phosphorus – See **Attachment D** of this permit for a Department protocol.

.

SPECIAL CONDITIONS

OUTFALL #002 – Non-contact cooling waters and steam condensate(1)

Effluent Characteristic **Discharge Limitations** **Monitoring Requirements**

	Monthly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
	as specified	as specified	as specified	as specified	as specified	as specified	as specified
Flow (MGD) *[50050]*	Report MGD *[03]*	Report MGD *[03]*			Report MGD *[03]*	1/Day *[01/01]*	Estimate *[ES]*
Temperature *[00011]*							
June 1 – September 30	---	---	---	---	115°F *[15]*	1/Day *[01/01]*	Grab *[GR*
October 1 – May 31	---	---	---	---	115°F *[15]*	1/Week *[01/07]*	Grab *[GR]*
pH (Std. Unit) *[00400]*	---		---	---	5.0 – 9.0 SU *[12]*	1/Day *[01/01]*	Grab *[GR)*

Footnotes:

(1) The permittee is authorized to discharge any combination of non-contact cooling water, non-contact condensing water, including discharges from turbine generators, chlorine dioxide plant cooling waters and evaporation cooling waters within the limitations specified above. The permittee must identify the sources of the waters being discharged as an attachment to the monthly Discharge Monitoring Report.

SPECIAL CONDITIONS

OUTFALL #003 – Filter backwash waters(1)

Effluent Characteristic **Discharge Limitations** **Monitoring Requirements**

	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
	as specified	as specified	As specified	as specified	as specified	as specified
Flow *[50050]*	---	---	Report MGD *[03]*	Report MGD *[03]*	1/Month *[01/30]*	Estimate *[ES]*
Total Suspended Solids *[00530]*	336 lbs/Day *[26]*	1,001 lbs/Day *[26]*	Report mg/L *[19]*	Report mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
Total Residual Chlorine *[00560]*	---	---	---	0.5 mg/L *[19]*	1/Month *[01/30]*	Grab *[GR]*
pH (Standard Units) *[00400]*	---	---	---	5.0 – 9.0 SU *[12]*	1/Month *[01/30]*	Grab *[GR]*

Footnotes:

(1) Filter backwash waters include backwashes from media filters and incidental waters from the water treatment plant clearwell and filters.

SPECIAL CONDITIONS

OUTFALL #004 – Administrative outfall

Effluent Characteristic	Discharge Limitations					Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
River Temperature *June 1 – September 30*	---		---	0.5 °F**(1a)** *[15]*	---	1/Day *[01/01]*	Calculate *[CA]*
River Temperature *June 1 – September 30*	---		---	---	0.5 °F**(1b)** *[15]*	1/Day *[01/01]*	Calculate *[CA]*

Footnotes

(1) **River Temperature Increase**

(a) **Temperature Increase** (Increase of the ambient receiving water temperature) – This is a weekly rolling average limitation when the receiving water temperature is >66°F and <73°F. See Special Condition F, *River Temperature Increase*, of this permit for the equation to calculate the river temperature increase (RTI).

(b) **Temperature Increase** (Increase of the ambient receiving water temperature) - This is a daily maximum limitation when the receiving water temperature is >73°F. See Special Condition F, *River Temperature Increase,* of this permit for the equation to calculate the RTI.

SPECIAL CONDITIONS

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent must not contain a visible oil sheen, foam, or floating solids at any time which would impair the usages designated by the classification of the receiving waters.

2. The effluent must not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.

3. The discharge must not impart visible discoloration, taste, turbidity, toxicity, radioactivity or other properties in the receiving waters which would impair the usages designated for the classification of the receiving waters.

4. Notwithstanding specific conditions of the permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

5. The permittee must not use chlorophenolic-containing biocides.

C. TREATMENT PLANT OPERATOR

The person who has the management responsibility over the treatment facility must hold a minimum of a **Grade V** certificate or must be a Maine Registered Professional Engineer pursuant to *Sewerage Treatment Operators*, Title 32 M.R.S., Sections 4171-4182 and *Regulations for Wastewater Operator Certification*, 06-096 CMR 531 (effective May 8, 2006). All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

D. NOTIFICATION REQUIREMENT

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

1. Any substantial change (realized or anticipated) in the volume or character of pollutants being introduced into the waste water collection and treatment system.

2. For the purposes of this section, adequate notice must include information on:

   a. The quality and quantity of waste water introduced to the waste water collection and treatment system; and

   b. Any anticipated change in the quality and quantity of the waste water to be discharged from the treatment system.

SPECIAL CONDITIONS

E. 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 October 31, 2018; 2) the terms and conditions of this permit, and 3) only from Outfall #001, Outfall #002 and Outfall #003 (Outfall #004 is an administrative outfall). 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.

F. RIVER TEMPERATURE INCREASE (RTI)

Between June 1st and September 30th of each year when the ambient receiving water temperature is >66°F and <73°F, the permittee is limited to a thermal discharge that will not increase the ambient receiving water temperature by more than 0.5°F based on a weekly (7 days) rolling average calculation. When the ambient receiving water temperature is >73°F, the permittee is limited to a thermal discharge that will not increase the ambient receiving water temperature by more than 0.5°F based on a daily calculation. For each operating day during the applicable limitation period, the permittee shall calculate the RTI associated with the collective thermal discharge from Outfall #001 and #002 according to the following equation:

$$RTI\ (^{o}F) = \frac{Qe_{001}\ (Te_{001} - Tr) + Qe_{002}\ (Te_{002} - Tr)}{Qr}$$

where,

Qr = Ambient receiving water flow in gpd or MGD (must be like units as Qe)
Qe = Effluent flow in gpd or MGD (must be like units as Qr)
Te = Effluent temperature in ^{o}F
Tr = Ambient receiving water (mill intake) temperature in ^{o}F

Receiving water flow measurements (Qr) must be obtained from source/methodology approved by the Department. The permittee must adhere to mathematical protocols for significant figures and rounding the calculated RTI values. All RTI values reported to the Department on the monthly Discharge Monitoring Reports (DMRs) for compliance with the weekly rolling average and daily maximum ΔT limitations of 0.5°F, shall be rounded to the nearest 0.1°F. As an attachment to the monthly DMRs for June – September of each year, the permittee must submit the daily values for Qr, Qe, Te and Tr in the equation above.

SPECIAL CONDITIONS

G. BEST MANAGEMENT PRACTICES PLAN

a. Best Management Practices (BMPs) for spent pulping liquor must be developed by the permittee in accordance with federal regulation 40 CFR, Part 430.03, best engineering practices and must be implemented in a manner that takes into account the specific circumstances at each mill.

b. The permittee must amend its BMP Plan whenever there is a change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, turpentine, or soap from the immediate process areas.

c. The permittee must complete a review and evaluation of the BMP Plan every five years. As a result of this review and evaluation, the permittee must amend the BMP Plan within three months of the review if the mill determines that any new or modified management practices and engineered controls are necessary to reduce significantly the likelihood of spent pulping liquor, soap, and turpentine leaks, spills, or intentional diversions from the immediate process areas, including a schedule for implementation of such practices and controls.

d. The BMP Plan, and any amendments, must be reviewed by the senior technical manager at the mill and approved and signed by the mill manager. Any person signing the BMP Plan or its amendments must certify to the Permitting Authority under penalty of law that the BMP Plan (or its amendments) has been prepared in accordance with good engineering practices and in accordance with this regulation. The mill is not required to obtain approval from the Permitting Authority of the BMP Plan or any amendments.

e. The permittee must maintain on its premises a complete copy of the current BMP Plan and associated records. The BMP Plan and records must be made available to the Permitting Authority or his or her designee for review upon request.

H. FISH ADVISORY PROGRAM

When directed to do so, the permittee is required to participate in the State's most current Surface Water Toxics Control Program (SWAT) for dioxin administered by the Department, pursuant to Maine law, 38 M.R.S.A., §420-B. This requirement to begin 30 days after permittee notifies the Department that it intends to resume bleached kraft production.

SECIAL CONDITIONS

I. ANNUAL DIOXIN/FURAN CERTIFICATION

The following requirements will take effect 30 days after permittee notifies the Department that it intends to resume bleached kraft production. In lieu of 1/Month monitoring of the bleach plant waste stream for 2,3,7,8 TCDD (dioxin) and 2,3,7,8 TCDF (furan) (40 CFR Part 430), **by December 31 of each calendar year *[PCS Code 95799]***, the permittee must provide the Department with a certification stating:

a. Elemental chlorine gas or hypochlorite was not used in the bleaching of pulp.

b. The chlorine dioxide (ClO2) generating plant has been operated in a manner which minimizes or eliminates byproduct elemental chlorine generation per the manufacturers/suppliers' recommendations.

c. Documented and verifiable purchasing procedures are in place for the procurement of defoamers or other additives without elevated levels of known dioxin precursors.

d. Fundamental design changes that affect the ClO2 plant and/or bleach plant operation have been reported to the Department prior to their implementation and said reports explained the reason(s) for the change and any possible adverse consequences if any.

J. 06-096 CMR 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 96299]***. See **Attachment E** this permit 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; and

c. Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

SPECIAL CONDITIONS

J. 06-096 CMR 530(2)(D)(4) STATEMENT FOR REDUCED/WAIVED TOXICS TESTING (cont'd)

In addition, in the comments section of the certification form, the permittee shall 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.

e. Increases in the type or volume of hauled wastes accepted by the facility.

The Department reserves the right to reinstate routine surveillance level testing or other toxicity testing if new information becomes available that indicates the discharge may cause or have a reasonable potential to cause exceedances of ambient water quality criteria/thresholds.

K. COMMENCEMENT OF BLEACHING OPERATIONS

Should the permittee propose to resume bleaching operations at the mill, the permittee must provide written notice to the Department's permitting and compliance inspection staff **at a minimum of thirty (30) days prior to commencing bleaching operations** at the facility. This 30-day timeframe will give the Department the opportunity to review the applicability of the permit limitations, monitoring requirements, and reporting requirements. Should the Department determine that the proposed bleaching operations are significantly different from what was presented in past or current application materials, the Department may require the applicable party to modify this permit or to file an application for a new permit.

L. OPERATION & MAINTENANCE (O&M) PLAN

This facility must maintain a current written comprehensive Operation & Maintenance (O&M) Plan. The plan must provide a systematic approach by which the permittee must at all times, properly operate and maintain all facilities and systems of transport, 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 significant process changes,** the permittee must evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the waste water 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 EPA personnel upon request.

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

SPECIAL CONDITIONS

M. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results specified 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 limits 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.

N. MONITORING AND REPORTING MONITORING AND REPORTING

Electronic Reporting

NPDES Electronic Reporting, 40 C.F.R. 127, requires MEPDES permit holders to submit monitoring results obtained during the previous month on an electronic discharge monitoring report to the regulatory agency utilizing the USEPA electronic system.

Electronic Discharge Monitoring Reports (DMRs) submitted using the USEPA NetDMR system, must be:

1. Submitted by a facility authorized signatory; and
2. Submitted no later than **midnight on the 15th day of the month** following the completed reporting period.

Documentation submitted in support of the electronic DMR may be attached to the electronic DMR. Toxics reporting must be done using the DEP toxsheet reporting form. An electronic copy of the Toxsheet reporting document must be submitted to your Department compliance inspector as an attachment to an email. In addition, a hardcopy form of this sheet must be signed and submitted to your compliance inspector, or a copy attached to your NetDMR submittal will suffice. Documentation submitted electronically to the Department in support of the electronic DMR must be submitted no later than midnight on the 15th day of the month following the completed reporting period.

O. 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 shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

ATTACHMENT A

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
FRESH WATERS

Facility Name _____ MEPDES Permit # _____

Pipe # _____

Facility Representative _____ Signature _____

By signing this form, I attest that to the best of my knowledge that the information provided is true, accurate, and complete.

Facility Telephone # _____ Date Collected _____ Date Tested _____

mm/dd/yy mm/dd/yy

Chlorinated? _____ Dechlorinated? _____

Results	**% effluent**	
	trout	**water flea**
A-NOEL		
C-NOEL		

	A-NOEL	
C-NOEL		

		% survival	**no. young**	**% survival**		**final weight (mg)**
QC standard	**A>90**	**C>80**	**>15/female**	**A>90**	**C>80**	**> 2% increase**
lab control						
receiving water control						
conc. 1 (%)						
conc. 2 (%)						
conc. 3 (%)						
conc. 4 (%)						
conc. 5 (%)						
conc. 6 (%)						
stat test used						

place * next to values statistically different from controls

for trout show final wt and % incr for both controls

	A-NOEL	C-NOEL	A-NOEL	C-NOEL
toxicant/date				
limits (mg/L)				
results (mg/L)				

Comments _____

Laboratory conducting test

Company Name _____ Company Rep. Name (Printed) _____

Mailing Address _____ Company Rep. Signature _____

City, State, ZIP _____ Company Telephone # _____

Report WET chemistry on DEP Form "ToxSheet (Fresh Water Version), March 2007."

ATTACHMENT B

Maine Department of Environmental Protection
WET and Chem
This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

Facility Name _____ **MEPDES #** _____ Facility Representative Signature _____
Pipe # _____ To the best of my knowledge this information is true, accurate and complete.

Licensed Flow (MGD)		**Flow for Day (MGD)[1]**	**Flow Avg. for Month (MGD)[2]**
Acute dilution factor			
Chronic dilution factor		**Date Sample Collected**	**Date Sample Analyzed**
Human health dilution factor			
Criteria type: M(arine) or F(resh)	f		

Laboratory _____ Telephone _____
Address _____
_____
Lab Contact _____ Lab ID # _____

Last Revision - July 1, 2015

ERROR WARNING ! Essential facility information is missing. Please check required entries in bold above.

FRESH WATER VERSION

Please see the footnotes on the last page.

			Effluent Limits, %			Receiving Water or Ambient	**Effluent Concentration (ug/L or as noted)**		**Possible Exceedence [7]**		
			Acute	Chronic			WET Result, % Do not enter % sign	Reporting Limit Check	Acute	Chronic	
	WHOLE EFFLUENT TOXICITY										
	Trout - Acute										
	Trout - Chronic										
	Water Flea - Acute										
	Water Flea - Chronic										
	WET CHEMISTRY										
	pH (S.U.) (9)										
	Total Organic Carbon (mg/L)					(8)					
	Total Solids (mg/L)										
	Total Suspended Solids (mg/L)										
	Alkalinity (mg/L)					(8)					
	Specific Conductance (umhos)										
	Total Hardness (mg/L)					(8)					
	Total Magnesium (mg/L)					(8)					
	Total Calcium (mg/L)					(8)					
	ANALYTICAL CHEMISTRY [3]										
	Also do these tests on the effluent with WET. Testing on the receiving water is optional	Reporting Limit	Effluent Limits, ug/L Acute[6]	Chronic[6]	Health[6]			Reporting Limit Check	**Possible Exceedence [7]** Acute	Chronic	Health
	TOTAL RESIDUAL CHLORINE (mg/L) (9)	0.05				NA					
	AMMONIA	NA				(8)					
M	ALUMINUM	NA				(8)					
M	ARSENIC	5				(8)					
M	CADMIUM	1				(8)					
M	CHROMIUM	10				(8)					
M	COPPER	3				(8)					
M	CYANIDE, TOTAL	5				(8)					
	CYANIDE, AVAILABLE [3a]	5				(8)					
M	LEAD	3				(8)					
M	NICKEL	5				(8)					
M	SILVER	1				(8)					
M	ZINC	5				(8)					

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	PRIORITY POLLUTANTS [4]										
			Effluent Limits					Reporting Limit Check	**Possible Exceedence** [7]		
		Reporting Limit	Acute[6]	Chronic[6]	Health[6]				Acute	Chronic	Health
M	ANTIMONY	5									
M	BERYLLIUM	2									
M	MERCURY (5)	0.2									
M	SELENIUM	5									
M	THALLIUM	4									
A	2,4,6-TRICHLOROPHENOL	5									
A	2,4-DICHLOROPHENOL	5									
A	2,4-DIMETHYLPHENOL	5									
A	2,4-DINITROPHENOL	45									
A	2-CHLOROPHENOL	5									
A	2-NITROPHENOL	5									
A	4,6 DINITRO-O-CRESOL (2-Methyl-4,6-dinitrophenol)	25									
A	4-NITROPHENOL	20									
A	P-CHLORO-M-CRESOL (3-methyl-4-chlorophenol)+B80	5									
A	PENTACHLOROPHENOL	20									
A	PHENOL	5									
BN	1,2,4-TRICHLOROBENZENE	5									
BN	1,2-(O)DICHLOROBENZENE	5									
BN	1,2-DIPHENYLHYDRAZINE	20									
BN	1,3-(M)DICHLOROBENZENE	5									
BN	1,4-(P)DICHLOROBENZENE	5									
BN	2,4-DINITROTOLUENE	6									
BN	2,6-DINITROTOLUENE	5									
BN	2-CHLORONAPHTHALENE	5									
BN	3,3'-DICHLOROBENZIDINE	16.5									
BN	3,4-BENZO(B)FLUORANTHENE	5									
BN	4-BROMOPHENYLPHENYL ETHER	5									
BN	4-CHLOROPHENYL PHENYL ETHER	5									
BN	ACENAPHTHENE	5									
BN	ACENAPHTHYLENE	5									
BN	ANTHRACENE	5									
BN	BENZIDINE	45									
BN	BENZO(A)ANTHRACENE	8									
BN	BENZO(A)PYRENE	5									
BN	BENZO(G,H,I)PERYLENE	5									
BN	BENZO(K)FLUORANTHENE	5									
BN	BIS(2-CHLOROETHOXY)METHANE	5									
BN	BIS(2-CHLOROETHYL)ETHER	6									
BN	BIS(2-CHLOROISOPROPYL)ETHER	6									
BN	BIS(2-ETHYLHEXYL)PHTHALATE	10									
BN	BUTYLBENZYL PHTHALATE	5									
BN	CHRYSENE	5									
BN	DI-N-BUTYL PHTHALATE	5									
BN	DI-N-OCTYL PHTHALATE	5									
BN	DIBENZO(A,H)ANTHRACENE	5									
BN	DIETHYL PHTHALATE	5									
BN	DIMETHYL PHTHALATE	5									
BN	FLUORANTHENE	5									

Maine Department of Environmental Protection
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BN	FLUORENE	5									
BN	HEXACHLOROBENZENE	5									
BN	HEXACHLOROBUTADIENE	5									
BN	HEXACHLOROCYCLOPENTADIENE	10									
BN	HEXACHLOROETHANE	5									
BN	INDENO(1,2,3-CD)PYRENE	5									
BN	ISOPHORONE	5									
BN	N-NITROSODI-N-PROPYLAMINE	10									
BN	N-NITROSODIMETHYLAMINE	5									
BN	N-NITROSODIPHENYLAMINE	5									
BN	NAPHTHALENE	5									
BN	NITROBENZENE	5									
BN	PHENANTHRENE	5									
BN	PYRENE	5									
P	4,4'-DDD	0.05									
P	4,4'-DDE	0.05									
P	4,4'-DDT	0.05									
P	A-BHC	0.2									
P	A-ENDOSULFAN	0.05									
P	ALDRIN	0.15									
P	B-BHC	0.05									
P	B-ENDOSULFAN	0.05									
P	CHLORDANE	0.1									
P	D-BHC	0.05									
P	DIELDRIN	0.05									
P	ENDOSULFAN SULFATE	0.1									
P	ENDRIN	0.05									
P	ENDRIN ALDEHYDE	0.05									
P	G-BHC	0.15									
P	HEPTACHLOR	0.15									
P	HEPTACHLOR EPOXIDE	0.1									
P	PCB-1016	0.3									
P	PCB-1221	0.3									
P	PCB-1232	0.3									
P	PCB-1242	0.3									
P	PCB-1248	0.3									
P	PCB-1254	0.3									
P	PCB-1260	0.2									
P	TOXAPHENE	1									
V	1,1,1-TRICHLOROETHANE	5									
V	1,1,2,2-TETRACHLOROETHANE	7									
V	1,1,2-TRICHLOROETHANE	5									
V	1,1-DICHLOROETHANE	5									
V	1,1-DICHLOROETHYLENE (1,1-dichloroethene)	3									
V	1,2-DICHLOROETHANE	3									
V	1,2-DICHLOROPROPANE	6									
V	1,2-TRANS-DICHLOROETHYLENE (1,2-trans-dichloroethene)	5									
V	1,3-DICHLOROPROPYLENE (1,3-dichloropropene)	5									
V	2-CHLOROETHYLVINYL ETHER	20									
V	ACROLEIN	NA									
V	ACRYLONITRILE	NA									
V	BENZENE	5									

Maine Department of Environmental Protection
WET and Chem
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V	BROMOFORM	5									
V	CARBON TETRACHLORIDE	5									
V	CHLOROBENZENE	6									
V	CHLORODIBROMOMETHANE	3									
V	CHLOROETHANE	5									
V	CHLOROFORM	5									
V	DICHLOROBROMOMETHANE	3									
V	ETHYLBENZENE	10									
V	METHYL BROMIDE (Bromomethane)	5									
V	METHYL CHLORIDE (Chloromethane)	5									
V	METHYLENE CHLORIDE	5									
V	TETRACHLOROETHYLENE (Perchloroethylene or Tetrachloroethene)	5									
V	TOLUENE	5									
V	TRICHLOROETHYLENE (Trichloroethene)	3									
V	VINYL CHLORIDE	5									

Notes:

(1) Flow average for day pertains to WET/PP composite sample day.

(2) Flow average for month is for month in which WET/PP sample was taken.

(3) Analytical chemistry parameters must be done as part of the WET test chemistry.

(3a) Cyanide, Available (Cyanide Amenable to Chlorination) is not an analytical chemistry parameter, but may be required by certain discharge permits .

(4) Priority Pollutants should be reported in micrograms per liter (ug/L).

(5) Mercury is often reported in nanograms per liter (ng/L) by the contract laboratory, so be sure to convert to micrograms per liter on this spreadsheet.

(6) Effluent Limits are calculated based on dilution factor, background allocation (10%) and water quality reserves (15% - to allow for new or changed discharges or non-point sources).

(7) Possible Exceedence determinations are done for a single sample only on a mass basis using the actual pounds discharged. This analysis does not consider watershed wide allocations for fresh water discharges.

(8) These tests are optional for the receiving water. However, where possible samples of the receiving water should be preserved and saved for the duration of the WET test. In the event of questions about the receiving water's possible effect on the WET results, chemistry tests should then be conducted.

(9) pH and Total Residual Chlorine must be conducted at the time of sample collection. Tests for Total Residual Chlorine need be conducted only when an effluent has been chlorinated or residual chlorine is believed to be present for any other reason.

Comments:

ATTACHMENT C

Maine Department of Environmental Protection

Effluent Mercury Test Report

Name of Facility: _____ Federal Permit # ME _____

Purpose of this test:
- ☐ Initial limit determination
- ☐ Compliance monitoring for: year _____ calendar quarter _____
- ☐ Supplemental or extra test

SAMPLE COLLECTION INFORMATION

Sampling Date: ___ ___ _____ (mm dd yy) Sampling time: _____ AM/PM

Sampling Location:

Weather Conditions: _____

Please describe any unusual conditions with the influent or at the facility during or preceding the time of sample collection:

Optional test - not required but recommended where possible to allow for the most meaningful evaluation of mercury results:

Suspended Solids _____ mg/L Sample type: _____ Grab (recommended) or _____ Composite

ANALYTICAL RESULT FOR EFFLUENT MERCURY

Name of Laboratory: _____

Date of analysis: _____ **Result:** _____ **ng/L (PPT)**

Please Enter Effluent Limits for your facility

Effluent Limits: **Average =** _____ ng/L **Maximum =** _____ ng/L

Please attach any remarks or comments from the laboratory that may have a bearing on the results or their interpretation. If duplicate samples were taken at the same time please report the average.

CERTIFICATION

I certifiy that to the best of my knowledge the foregoing information is correct and representative of conditions at the time of sample collection. The sample for mercury was collected and analyzed using EPA Methods 1669 (clean sampling) and 1631 (trace level analysis) in accordance with instructions from the DEP.

By: _____ Date: _____

Title: _____

PLEASE MAIL THIS FORM TO YOUR ASSIGNED INSPECTOR

ATTACHMENT D

Protocol for Total Phosphorus Sample Collection and Analysis for Waste Water and Receiving Water Monitoring Required by Permits

Approved Analytical Methods: EPA 200.7 (Rev. 44), 365.1 (Rev. 2.0), (Lachat), 365.3, 365.4; SM 3120 B, 4500-P B.5, 4500-P E, 4500-P F, 4500-P G, 4500-P H; ASTM D515-88(A), D515-88(B); USGS I-4471-97, I-4600-85, I-4610-91; OMAAOAC 973.55, 973.56

Sample Collection: The Maine DEP is requesting that total phosphorus analysis be conducted on composite effluent samples, unless a facility's Permit specifically designates grab sampling for this parameter. Facilities can use individual collection bottles or a single jug made out of glass or polyethylene. Bottles and/or jugs should be cleaned prior to each use with dilute HCL. This cleaning should be followed by several rinses with distilled water. Commercially purchased, pre-cleaned sample containers are an acceptable alternative. The sampler hoses should be cleaned, as needed.

Sample Preservation: During compositing the sample must be at 0-6 degrees C (without freezing). If the sample is being sent to a commercial laboratory or analysis cannot be performed the day of collection then the sample must be preserved using H_2SO_4 to obtain a sample pH of <2 su and refrigerated at 0-6 degrees C (without freezing). The holding time for a preserved sample is 28 days.

Note: Ideally, Total P samples are preserved as described above. However, if a facility is using a commercial laboratory then that laboratory may choose to add acid to the sample once it arrives at the laboratory. The Maine DEP will accept results that use either of these preservation methods.

Laboratory QA/QC: Laboratories must follow the appropriate QA/QC procedures that are described in each of the approved methods.

Sampling QA/QC: If a composite sample is being collected using an automated sampler, then once per month run a blank on the composite sampler. Automatically, draw distilled water into the sample jug using the sample collection line. Let this water set in the jug for 24 hours and then analyze for total phosphorus. Preserve this sample as described above.

ATTACHMENT E

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?	☐	☐
2	Changes in the condition or operations of the facility that may increase the toxicity of the discharge?	☐	☐
3	Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge?	☐	☐
4	Increases in the type or volume of hauled wastes accepted by the facility?	☐	☐

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	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
WET Testing	□	□	□	□
Priority Pollutant Testing	□	□	□	□
Analytical Chemistry	□	□	□	□
Other toxic parameters [1]	□	□	□	□

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.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date**: November 9, 2018**

PERMIT NUMBER: **ME0002020**
LICENSE NUMBER: **W002226-5N-P-M**

NAME AND ADDRESS OF APPLICANT

ND OTM LLC
24 Portland Street
Old Town, ME. 04468

COUNTY: **Penobscot**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

ND OTM LLC
24 Portland Street
Old Town, ME. 04468

RECEIVING WATER / CLASSIFICATION: **Penobscot River/Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Scott Reed**
Manager of Environmental and
Public Affairs (207)369-2203
e-mail scott.reeed@us.ndpaper.com

1. APPLICATION SUMMARY:

a. Application: ND OTM LLC (ND/permittee hereinafter) has filed an application with the Department to modify Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0002020/Maine Waste Discharge License (WDL) #W002766-5O-O-R that was issued by the Department on October 12, 2016. In this permitting action, ND, which recently acquired the mill property and intends to restart pulp production, seeks a reversion to most of the provisions of the May 19, 2011, renewal permit issued to Red Shield Acquisition LLC, as updated to reflect current river conditions.

1. APPLICATION SUMMARY (cont'd)

ND's mill located in Old Town, Maine is currently capable of manufacturing an average of 566 tons/day bleached kraft market pulp or an equivalent amount of unbleached pulp. Up until 2006, the mill also produced257 tons/day bleached kraft tissue products. Combined with the existing capacity regained by re-conversion of existing pulp mill equipment from a bio-refinery use to conventional kraft pulping, the existing pulping capacity is approximately 800 tons/day. ND intends to initially restart pulping operations at the mill's current capacity. Once normal operations are achieved, ND will evaluate market conditions and product opportunities to determine when and how to begin operating the facility at its full existing pulping capacity, and making the pulp and paper grades most optimal for ND's strategic plans.

The 8/6/02 MEPDES permit authorized the discharge up to a monthly average of 24.4 million gallons per day (MGD) of treated process waters (including storm water and landfill leachate) and other waste waters associated with the pulp and papermaking process, non-contact cooling waters, turbine condensing waters and filter backwash waters from three outfalls to the Penobscot River. See **Attachment A** of this Fact Sheet for a location map of the facility. The permit also authorized discharges associated with or resulting from essential maintenance, regularly scheduled maintenance during start-up and shutdown. ND is seeking authorization to discharge waste water associated with both pulping and the manufacturing of paper products as it's long term business plan is to produce such products once market conditions are favorable.

ND has requested to discharge treated production process waste waters (including treated storm water runoff and treated landfill leachate from the Juniper Ridge Landfill, non-contact cooling waters and filter backwash waters from three (3) separate outfalls. The permittee has also requested authorization to accept and treat up to 40,000 gallons per month of filter backwash waters from a local public drinking water treatment facility and up to 25,000 gallons/day of wastewater from a commercial bakery. Sanitary waste water generated at the mill is directed to Old Town's municipal waste water treatment facility which is also permitted by the Department. ND's production process waste waters discharge through Outfall #001 and receive a secondary level of treatment by way of an activated sludge process. The waste waters receive best practicable treatment via a bar screen, two primary clarifiers (each 150 feet in diameter), an aeration basin (~ 50 million gallons of capacity) and two secondary clarifiers (each 170 feet in diameter) before being discharged to the receiving waters. In addition to the routine waste waters discharged, this permit authorizes discharges associated with or resulting from essential maintenance, regularly scheduled maintenance during start-up and shutdown, spills and release (whether anticipated or unanticipated) from anywhere in the permitted facility. The facility's waste water collection and treatment systems are also used for elementary neutralization pursuant to Maine law, 38 M.R.S., §1319.1, the facility will be seeking coverage for storm water outfalls under a MEPDES Multi-Sector General Permit for Stormwater Discharges Associated With Industrial Activity issued by the Department on December 7, 2016. See **Attachment B** of this Fact Sheet for a schematic of the waste water treatment facility.

1. APPLICATION SUMMARY (cont'd)

Non-contact cooling waters**,** non-contact condensing waters including discharges from turbine cooling waters and cooling waters for oil coolers are discharged from Outfall #002 and do not receive any formal treatment as the only pollutant of concern is heat. Waters discharged from Outfall #003 consist of filter backwash waters from 16 gravity sand filters used to filter raw water extracted from the Penobscot River for process make-up water and boiler feedwater. The discharge from Outfall #003 does not receive any formal treatment prior to discharge to the receiving water.

2. PERMIT SUMMARY

a. Requested - ND seeks reversion to the 5/19/11 permit, updated as appropriate to reflect current river conditions and its proposed operations.

1. Reversion to the previously existing limitations for Outfall #001 on flow, temperature, pH, BOD, TSS and color;

2. Elimination of the Total Phosphorus monitoring and limitation for Outfall #001, consistent with the finding in the 2/16/16 modification;

3. Since ND's current plans are to only produce unbleached kraft pulp, language specifying that the 5/19/11 limitations and requirements associated with bleached kraft pulp production, including the requirement to participate when directed in the State's Surface Water Toxics Control Program, only take effect thirty (30) days after ND notifies the Department of its intent to resume bleached kraft production;

4. Monitoring-only requirements for Aluminum, Copper, and Lead, until a new DETOX model run confirms whether such requirements are still necessary; and

5. Reversion to the previously existing provisions relating to Outfalls #002, #003, and #004.

b. Terms and conditions - This permitting action is carrying forward all the terms and conditions of the 5/9/11 permitting action except that this permit is:

1. Eliminating the monthly average and daily maximum water quality based mass and concentration limitations for total aluminum, total copper and total lead as these limitations were based on a statistical evaluation of a discharge that is fundamentally different than the proposed discharge from the ND operation.

2. Establishing screening level whole effluent toxicity (WET), analytical chemistry and priority pollutant testing upon issuance of this permit modification. Surveillance level testing requirements will be established as appropriate after a statistical evaluation is completed by the Department on the screening test results as the proposed discharge is fundamentally different than the discharge from the MFGR operation.

2. PERMIT SUMMARY (cont'd)

3. Eliminating Special Condition M, *Ambient Water Quality Monitoring*, as the Department gathered sufficient information on the ambient water quality during the previous permit term resulting in the permit condition no longer being necessary.

4. Establishing a special condition requiring ND to notify the Department 30 days prior to commencing operations of bleaching operations at the facility.

5. Modifying the flow limitation for Outfall 001 from 24.4 MGD to "report only" for the term of the permit given the facility will be operating as a pulp mill only upon start up. The permittee and the Department will conduct a statistical evaluation on the flow data upon permit renewal to establish a representative flow limitation taking into account the present and future configuration of the facility and the waste water treatment plant design capacity.

6. Eliminating the limitation and monitoring requirements associated with the National Effluent Guidelines (NEG's) found in Title 40, Code of Federal Regulations (CFR) Part 445, *Landfills Point Source Category*, Subpart B, *RCRA Subtitle D Non-Hazardous Waste Landfill*. NEG 40 CFR Part 445 given the landfill leachate is a minor waste stream in the effluent.

b. <u>History:</u> The most current and relevant permitting and licensing actions include:

December 27, 1983 – The EPA issued a renewal of NPDES permit #ME0002020 for a five-year term. The permit was issued in the name of the James River Paper Company Inc.

August 19, 1992 – The EPA issued a renewal of NPDES permit #ME0002020 for a five-year term. The permit was issued in the name of the James River Paper Company Inc.

September 18, 1992 -The James River Paper Company Inc. appealed the EPA's August 19, 1992 permit and requested an evidentiary hearing regarding limitations and monitoring requirements for dioxin, furan, color, AOX, pH, whole effluent toxicity, fish analysis, a narrative condition regarding PCB discharges, and the narrative description for Outfall #002 contained in the permit. EPA neither denied nor granted such a hearing and thus the permit never became effective and the permit and the appeal have since expired. It is noted that the EPA and FJOC reached a settlement agreement in 1995 to address the appeal but the EPA never modified the NPDES permit to reflect the settlement agreement prior to the State of Maine receiving authorization to administer the NPDES permitting program. In order to resolve the appeal that was pending before the EPA's Environmental Appeals Board and to ensure the contested conditions of the NPDES permit remained in abeyance until the State of Maine issued a MEPDES permit, the EPA withdrew the contested permit conditions pursuant to federal regulation, 40 CFR Part 124.19(d). The remaining terms and conditions of 9/18/92 NPDES permit remained in effect until the MEPDES permit is issued by the State. The Order to accept

2. PERMIT SUMMARY (cont'd)

the removal of the contested permit conditions from FJOC's 1992 NPDES permit was accepted by the federal Environmental Appeals Board judge on May 30, 2001.

February 14, 1994– The Department issued WDL #W002226-44-D-R for a five-year term.

December 1, 1995 – The EPA issued a formal draft permit modification for a 30-day public comment period. On January 3, 1996, the Department issued a Section 401 water quality certification of the permit. Due to comments received from the USF&WS, the Natural Resources Council of Maine (NRCM) and the Penobscot Indian Nation (PIN) on the draft permit, the permit modification was never issued as a final document.

June 27, 1997 – The James River Corporation submitted an application to the EPA to renew NPDES permit #ME0002020 for the Old Town mill. On July 9, 1997, the EPA issued a letter to the James River Corporation indicating the application was deemed complete for processing.

October 13, 1998 - The Department modified the 2/14/94 WDL by issuing WDL Modification #W002226-5N-E-M. The modification was initiated by the Department and was necessary to implement new legislation regarding color, dioxin and furan limitations found at Maine law, 38 M.R.S.A., §414-C and §420.

February 9, 1999 – The Fort James Operating Company submitted a timely application to the Department to renew the WDL for the Old Town mill.

May 23, 2000 – The Department administratively modified the WDL for the FJOC's Old Town mill by establishing interim limits for mercury pursuant to Maine law, 38 M.R.S.A., §420. The modification established a monthly average limit of 18.5 ng/L and a daily maximum limit of 27.8 ng/L.

August 6, 2002 – The Department issued combination MEPDES permit #ME0002020/WDL W002226-5H-F-R for a five-year term.

February 5, 2004 – under agreement with the State, the then-owner of the mill and the New England Waste Services of ME, Landfill operations Company, LLC, landfill leachate from the former mill landfill is accepted for treatment in the mill's wastewater treatment plant.

July 16, 2004 – The Department administratively modified the 8/6/02 permit by suspending monitoring requirements for chloroform in lieu of a certification pursuant to federal regulation 40 CFR Part 430.02(f).

October 12, 2005 - The Department promulgated rules, Chapter 530, *Surface Water Toxics Control Program* and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants.*

2. PERMIT SUMMARY (cont'd)

April 10, 2006 – The Department modified WDL #W002226-5N-F-R to incorporate the terms and conditions of Department rules Chapter 530 and Chapter 584 pertaining to whole effluent toxicity (WET) testing and ambient water quality criteria.

July 27, 2007 – Red Shield submitted a timely and complete application to the Department to renew the 8/2/07 MEPDES permit/WDL.

February 22, 2011 – Red Shield amended their application for renewal by submitting a Transported Waste Application to the Department. Red Shield has requested approval to accept filter backwash waters associated with a local drinking water supply treatment system.

February 22, 2011 – Red Shield amended their application for permit renewal by submitting information regarding waste streams to be treated for the Demonstration Scale Bio-refinery.

May 19, 2011 — The Department issued combination MEPDES permit ME0002020/WDL W00598-5N-N-R for a five-year term.

December 4, 2014 — The May 19, 2011, MEPDES permit was transferred from Red Shield Acquisition LCC to Expera Old Town, LLC

.

May 19, 2015 — The Department issued a modification of the May 19, 2011, permit by extending the deadline to come into compliance with the water• quality based total phosphorus limit.

February 2, 2016 — The Department issued a modification of the May 19, 2011, permit that reduced the monitoring frequencies for biochemical oxygen demand (BOD), total suspended solids (TSS), temperature, pH, whole effluent toxicity (WET) testing and analytical chemistry. The modification also eliminated the technology based limits for adsorbable organic halogens (AOX) and the water quality based total phosphorus limit. All modifications were associated with the permanent shutdown of the kraft pulping operation and updated evaluation of annual ambient water quality monitoring data.

March 17, 2016 — MFGR, LLC submitted an application to the Department to renew the MEPDES permit/WDL.

April 26, 2016 — The May 19, 2011, MEPDES permit was transferred from Expera Old Town, LLC to MFGR, LLC.

October 12, 2016 – The Department issued MEPDES permit ME0000202/W002226-5O-O-R to MFGR LLC for a five-year term.

2. PERMIT SUMMARY (cont'd)

February 12, 2018 – OTM Holdings, LLC which purchased the mill from MFGR, LLC on January 29, 2018, submitted an application for global license transfer to the Department. The transfer was never issued and the application was withdrawn on October 22, 2018.

October 31, 2018 – The new owner of the mill, ND OTM, LLC applied for an amendment to WDL #W002226-5O-O-R to revert back to the provisions of WDL #W002226-5N-F-R, as updated to reflect current river conditions and the owner's current plans to begin unbleached pulping operations as soon as possible.

3. RECEIVING WATER STANDARDS

The Penobscot River Basin is located in the northeast part of the State of Maine and is the second largest river basin in New England. The main stem of the Penobscot River forms at the confluence of the East and West Branches in the Town of Medway, approximately 80 miles upriver from the head of tide in Bangor. The discharge points from the ND mill are located just below the former Great Works dam in Old Town, approximately 10 miles upriver from the head of tide. There are currently no major industrial dischargers upriver from the ND mill.

Maine law, 38 M.R.S. § 467(5) classifies the segment of the main stem of the Penobscot River, from the West Enfield Dam, including the Stillwater Branch, to the Veazie Dam, including all impoundments as a Class B waterway.

From the Veazie Dam, but not including the Veazie Dam, to the Maine Central Railroad bridge in Bangor-Brewer and from the Maine Central Railroad bridge in Bangor to a line extended in an east-west direction from a point 1.25 miles upstream of the confluence of Reeds Brook in Hampden are also classified as Class B waterways. Further, the Legislature finds that the free-flowing habitat of these last two river segments provides irreplaceable social and economic benefits and that this use must be maintained.

Maine law, 38 M.R.S. §465(3) contains the classification standards for Class B as follows:

Class B waters must be of such quality that they are suitable for the designated uses of drinking water supply after treatment; fishing; agriculture; recreation in and on the water; industrial process and cooling water supply; hydroelectric power generation, except as prohibited under Title 12, section 403; navigation; and as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired.

3. RECEIVING WATER STANDARDS

The dissolved oxygen content of Class B waters may not be less than 7 parts per million or 75% of saturation, whichever is higher, except that for the period from October 1st to May 14th, in order to ensure spawning and egg incubation of indigenous fish species, the 7-day mean dissolved oxygen concentration may not be less than 9.5 parts per million and the 1-day minimum dissolved oxygen concentration may not be less than 8.0 parts per million in identified fish spawning areas. Between May 15th and September 30th, the number of Escherichia coli bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 64 per 100 milliliters or an instantaneous level of 236 per 100 milliliters. In determining human and domestic animal origin, the department shall assess licensed and unlicensed sources using available diagnostic procedures.

Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community.

4. RECEIVING WATER QUALITY CONDITIONS

Table Category 4-B:(a) entitled, *Rivers And Streams Impaired By Pollutants – Pollution Control Requirements Reasonable Expected To Result in Attainment*, in a document entitled, State of Maine Department of Environmental Protection, 2016 Integrated Water Quality Monitoring and Assessment Report, published by the Department, states that ADB Assessment Unit ME01020000509_234R02, Veazie Dam to Reeds Brook (10.1 miles) has had impairment issues. More specifically, Nutrient/Eutrophication/Biological Indicators, dissolved oxygen and dioxin.

The Report lists all of Maine's fresh waters as, "*Category 5-C: 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 (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 waters, and many fish from any given water, 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 CMR 519.

5. EFFLUENT LIMITATIONS & MONITORIN REQUIREMENTS

OUTFALL #001 (Final Effluent)

Should future ambient water quality monitoring indicate water quality standards are not being achieved and the permittee is causing or contributing to the non-attainment, this permit may be reopened pursuant to Special Condition L, *Reopening of Permit For Modifications*, to establish additional limitations and or monitoring requirements to achieve applicable water quality standards.

a. Regulatory Basis: The discharge from the ND mill is subject to National Effluent Guidelines (NEG) found in 40 Code of Federal Regulations (CFR) Part 430 – *Pulp, Paper and Paperboard Manufacturing Point Source Category*. The regulation was promulgated on April 15, 1998 and reorganized 26 sub-categories in the previous regulation into 12 sub-categories by grouping mills with similar processes. The NEG's establish applicable limitations representing; 1) best practicable control technology currently available (BPT) for toxic and conventional pollutants for existing dischargers, 2) best conventional pollutant technology economically achievable (BCT) for conventional pollutants for existing dischargers, and 3) best available technology economically achievable (BAT) for toxic and non-conventional pollutants for existing dischargers. The regulation establishes limitations and monitoring requirements on the final outfall to the receiving waterbody as well as internal waste stream(s) such as the bleach plant effluent. The regulation also establishes limitations based on several methodologies including monthly average and or daily maximum mass limits based on production of pulp and paper produced or concentration limitations based on BPT, BCT or BAT.

   Maine law, 38 M.R.S. Section 414-A, requires that the effluent limitations prescribed for discharges require application of best practicable treatment, 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, Maine law, 38 M.R.S., Section 420 and Department rules Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria For Toxic Pollutants,* requires the regulation of toxic substances at the levels set forth in said rules.

b. Production: This permitting action is utilizing production figures of 794 tons/day of unbleached kraft pulp produced (566 air dried tons/day as market pulp) and 257 tons/day of bleached kraft tissue product for calculating technology based mass figures in this permitting action. It is noted the bleached kraft pulp produced is 756 air dried tons/day. The production figures are based on actual production figures provided by the former owner Red Shield for the period January 1, 1999 through December 31, 2001 when the facility was at a steady state rate of production.

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

OUTFALL #001 (Final Effluent)

c. Dilution Factors: Dilution factors associated with the discharge from the mill's waste water treatment facility were derived in accordance with freshwater protocols established in Department Rule Chapter 530, *Surface Water Toxics Control Program*, October of 2005.

$$\text{Dilution Factor} = \frac{\text{River Flow (cfs)(Conv. Factor)}}{\text{Plant Flow}}$$

Acute: 1Q10 = 2,678 cfs $\Rightarrow \frac{(2{,}678 \text{ cfs})(0.6464)}{12.7 \text{ MGD}^{(1)}} = 136{:}1$

Modified Acute[2]

$^1/_4$1Q10 = 670 cfs $\Rightarrow \frac{(670 \text{ cfs})(0.6464)}{12.7 \text{ MGD}} = 34{:}1$

Chronic: 7Q10 = 3,151 cfs $\Rightarrow \frac{(3{,}151 \text{ cfs})(0.6464)}{12.7 \text{ MGD}} = 160{:}1$

Harmonic Mean: = 8,404 cfs $\Rightarrow \frac{(8{,}404 \text{ cfs})(0.6464)}{12.7 \text{ MGD}} = 428{:}1$

(1) See the discussion in Section 5(d) on the following page.

(2) Chapter 530(4)(a) states that analyses using numeric acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The 1Q10 is lowest one-day flow over a ten-year recurrence interval. 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. Based on Department information as to the mixing characteristics of the discharge with the receiving water and a dye study conducted by the permittee in 1996, the Department has made the determination that the discharge does not receive rapid and complete mixing with the receiving water. Therefore, the default stream flow of 1/4 of the 1Q10 is applicable in acute statistical evaluations pursuant to Department Rule Chapter 530. As a result of the removal of the Great Works Dam and other changes in river conditions, the permittee may request a re-analysis of this determination.

5. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

(cont'd) OUTFALL #001 (Final Effluent)

d. Flow: The 5/19/11 permitting action established a monthly average limit of 24.4 MGD that was based on the facility operating as a pulp and paper manufacturing facility. Given the facility is going to be operated solely as a pulp mill during the term of this permit, the flow limitation is being replaced with a "report only" requirement. A review of the DMR data dating back to the period 2003 through 2015 indicates flows are widely variable and are not conducive to be utilized for statistical evaluations. A flow value of 12.7 MGD has been cited in the application for the renewal of 5/19/11 permit but the permittee is not confident that this may be representative of flows for the mill going back online during this permit term and should not be utilized to establish a flow limit in this permit. The permittee and the Department will review the flow data generated during the term of this five-year permit and reconsider establishing a flow limitation in the next permit renewal based on a statistical evaluation of the flow data taking into account the present and future configuration of the facility and the design capacity of the waste water treatment plant.

However, for establishing critical thresholds for dilution, whole effluent toxicity, and evaluations for reasonable potential to exceed applicable ambient water quality criteria, this permit is utilizing 12.7 MGD as flow value. This flow value is not to be construed as anything other than a placeholder until the statistical evaluation of the flow data is conducted after the five year term of this permit.

e. Biochemical oxygen demand (BOD_5) & Total suspended solids (TSS):

The following table contains the monthly average and daily maximum BOD and TSS limitations as calculated utilizing the BPT effluent limitations in 40 CFR Part 430, Sub-part B.

Final Prod. (t/d)	Subpart B	BOD Mon. Avg.		BOD Daily Max.		TSS Mon. Avg.		TSS Daily Max.	
		kg/kkg	lbs/day	kg/kkg	lbs/day	kg/kkg	lbs/day	kg/kkg	lbs/day
794	B-Mkt	8.05	12,778	15.45	24,534	16.4	26,043	30.4	48,275

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

OUTFALL #001 (Final Effluent)

Reissued permits/licenses must also conform with EPA's anti-backsliding regulation. Section 402(o) of the CWA and EPA's regulations 40 CFR 122.44(l) prohibits issuance of a new permit/license with limits less stringent than in a previously issued permit/license except in certain circumstances. The 8/6/02 MEPDES permit limited the discharge of BOD and TSS to the following, which were carried forward in the 5/19/11 permit:

	BOD-5 (lb/day)		TSS (lb/day)	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum
Nov. 1 – May 31	8,850	18,000	22,475	42,000
June 1– Oct.31	7,500	18,000	20,000	35,000

Derivation of the seasonal BOD and TSS limitations as illustrated above were based on a past demonstrated performance evaluation of the facilities wastewater treatment plant at the mill. The evaluation conducted by the Department used monitoring data for the time period of October 1, 1987 to April 30, 1990 in developing the 95% probable average monthly values of 10,430 lb/day and 24,100 lb/day for BOD and TSS respectively. The Department established the existing more stringent seasonal permit limits based upon best professional judgement (BPJ) of best practicable treatment. This permitting action is carrying forward all seasonal BOD and TSS limits from the previous permitting action.

A review of the DMR data for the period April 2009 – November 2010 (it is unclear whether the facility was operating at full production during this time) indicates the facility has discharged as follows:

	BOD Mass (lbs/day)	
	Month Avg.	Daily Max.
Range		
(summer)	1,341 – 4,100 lbs/day	2,271 – 10,641 lbs/day
(non-summer)	1,744 – 4,100 lbs/day	2,517 – 7,740 lbs/day
Arithmetic mean		
(summer)	2,605 lbs/day	5,514 lbs/day
(non-summer)	2,720 lbs/day	4,870 lbs/day

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

OUTFALL #001 (Final Effluent)

	TSS Mass (lbs/day)	
	Month Avg.	Daily Max.
Range		
(summer)	3,033 – 8,975 lbs/day	5,266 – 15,926 lbs/day
(non-summer)	4,081 – 10,929 lbs/day	5,921 – 17,279 lbs/day
Arithmetic mean		
(summer)	5,785 lbs/day	11,102 lbs/day
(non-summer)	6,612 lbs/day	11,928 lbs/day

f. Temperature: The previous permitting action established a year-round daily maximum effluent temperature limit of 105 ^{o}F that is being carried forward in this permitting action.

A review of the monthly Discharge Monitoring Report (DMR) data for the period January 2009 – November 2010 indicates temperatures have been reported as follows

Temperature

Value	Limit (^{o}F)	Range (^{o}F)	Mean (^{o}F)
Daily maximum	105	73 - 99	85

g. River Temperature Increase – Department Rule Chapter 582, *Regulations Relating To Temperature*, limits thermal discharges to an in-stream temperature increase (ΔT) of 0.5° F above the ambient receiving water temperature when the weekly average temperature of the receiving water is greater than or equal to 66° F or when the daily maximum temperature is greater than or equal to 73° F. The temperature thresholds are based on EPA water quality criterion for the protection of brook trout and Atlantic salmon (both species indigenous to the Penobscot River). The weekly average temperature of 66° F was derived to ensure normal growth of the brook trout and the daily maximum threshold temperature of 73° F protects for the survival of juveniles and adult Atlantic salmon during the summer months. As a point of clarification, the Department interprets the term "weekly average temperature" to mean a seven (7) day rolling average. To promote consistency, the Department also interprets the ΔT of 0.5° F as a weekly rolling average criterion when the receiving water temperature is >66° F and <73° F. When the receiving water temperature is >73°F, compliance with the ΔT of 0.5° F is evaluated on a daily basis. Compliance with the 0.5° F is determined by calculating the river temperature increase (RTI) (expressed in °F) using the actual receiving water flow, actual receiving water temperature, actual discharge flow and actual discharge temperature from the mill. See Special Condition F, *River Temperature Increase* for the formula to conduct said calculation.

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

OUTFALL #001 (Final Effluent)

Maine law, 38 M.R.S., §451 states that after adoption of any classification by the Legislature for surface waters or tidal flats or sections thereof, it is unlawful for any person, firm, corporation, municipality, association, partnership, quasi-municipal body, state agency or other legal entity to dispose of any pollutants, either alone or in conjunction with another or others, in such manner as will, after reasonable opportunity for dilution, diffusion or mixture with the receiving waters or heat transfer to the atmosphere, lower the quality of those waters below the minimum requirements of such classifications, or where mixing zones have been established by the Department, to lower the quality of those waters outside such zones, notwithstanding any exemptions or licenses which may have been granted or issued under sections 413 to 414-B.

Section 451 also states that, after opportunity for hearing, the Department may establish by order a mixing zone with respect to any discharge for which a license has been issued pursuant to section 414.

Section 451 also states that the purpose of a mixing zone is to allow a reasonable opportunity for dilution, diffusion or mixture of pollutants with the receiving waters before the receiving waters below or surrounding a discharge will be tested for classification violations. In determining the extent of any mixing zone to be established under this section, the Department may require from the applicant testimony concerning the nature and rate of the discharge; the nature and rate of existing discharges to the waterway; the size of the waterway and the rate of flow therein; any relevant seasonal, climatic, tidal and natural variations in such size, flow, nature and rate; the uses of the waterways in the vicinity of the discharge, and such other and further evidence as in the Department's judgment will enable it to establish a reasonable mixing zone for such discharge. An order establishing a mixing zone may provide that the extent thereof varies in order to take into account seasonal, climatic, tidal and natural variations in the size and flow of, and the nature and rate of, discharges to the waterway.

In 1995, the former owner of the mill conducted a dye study to determine the mixing characteristics of the mill's discharge in the Penobscot River. The dye study determined that the effluent from the mill completely mixed with receiving water approximately three miles downstream of the mill outfall and is considered by the Department to be the zone of initial dilution. No formal mixing zone outside of the zone of initial dilution has been established in this permitting action. Since that time, river conditions have changed, which includes but is not limited to removal of the Great Works Dam. The permittee may request that this determination be revisited in the future.

h. pH Range: The previous permitting action established a pH range limit of 5.0 – 9.0 standard units that was based on federal regulation 40 CFR, Part 430. This permitting action is carrying the limit forward and continues to be consistent with the federal effluent guidelines.

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

OUTFALL #001 (Final Effluent)

i. Absorbable organic halogens (AOX): The previous permitting action established monthly average and daily maximum mass limits for AOX based on federal regulation found at 40 CFR Part 430. The regulation establishes production based BAT monthly average and daily maximum allowances of 0.623 and 0.951 kg/kkg (lbs per 1000 pounds or metric tons) respectively, of unbleached pulp production. With an unbleached kraft production to be 794 tons/day the limits are calculated as follows:

(794 tons/day)(0.623 lbs/1000 lbs)(2000 lbs/ton) = 989 lbs /day
(794 tons/day)(0.951 lbs/1000 lbs)(2000 lbs/ton) = 1,510 lbs /day

Under the former owner Red Shield, the mill became elemental chlorine free (ECF) beginning December 1999. A review of the monthly DMR data for the period April 2009 – November 2010 indicates AOX discharge levels have been reported as follows:

AOX

Value	Limit (lbs)	Range (lbs)	Mean (lbs)
Monthly average	989	121 – 236	191
Daily maximum	1,510	174 – 334	248

The federal regulations require 1/Day monitoring for AOX on the final outfall. However, given the fact that permittee had demonstrated that the monthly average and daily maximum AOX discharged were 79% and 77% respectively, lower than the levels established in the federal regulation, the previous permit reduced the monitoring frequency from 3/Week 1/Quarter for AOX based on a best professional judgment of the monitoring frequency necessary to determine on-going compliance with the BAT thresholds in the federal regulation. Since the permittee is not planning on immediately resuming bleached kraft production, this permit contains a requirement via Special Condition M, *Commencement of Bleaching Operations*, that the permittee provide notice to the Department thirty (30) days prior to beginning such production. Permit requirements as a result of bleached kraft production will take effect 30 days after the permittee notifies the Department that it intends to resume bleached kraft production.

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

OUTFALL #001 (Final Effluent)

j. COD: The previous permitting action did not establish final effluent limitations or monitoring requirements for COD. Federal regulation 40 CFR Part 430 has reserved promulgating of specific final effluent limits for COD. The EPA's Permit Guidance Document for implementing 40 CFR Part 430 recommends "*... monitoring of effluent for COD to develop baseline data for developing a COD limit for mills in the future and to provide COD data for helping the mill develop a pollution control strategy*." Former owner Fort James Operating Company has submitted daily COD test results for the period December 1999 (beginning of ECF) through September 2002 which indicates consistent monthly average results. Therefore, this permit does not establish limitations or monitoring requirements until the EPA formally promulgates a performance standard for COD.

k. Color: For the ND mill, applicable sections of Maine law, 38 M.R.S., §414-C states that:

2) Best practicable treatment; color pollution. For the purposes of Section 414-A, Subsection 1, best practicable treatment for color pollution control for discharges of color pollutants from the kraft pulping process is:

A) For discharges licensed and in existence prior to July 1, 1989:

1) On July 1, 1998 and until December 31, 2000, 225 pounds or less of color pollutants per ton of unbleached pulp produced, measured on a quarterly average basis: and

2) On and after January 1, 2001, 150 pounds or less of color pollutants per ton of unbleached pulp produced, measured on a quarterly average basis.

A discharge from a kraft mill that is in compliance with this section is exempt from provisions of subsection 3.

3) An individual waste discharge may not increase the color of any water body by more than 20 color units. The total increase in color pollution units caused by all dischargers to the water body must be less than 40 color pollution units. This subsection applies to all flows greater than the minimum 30-day low flow that can be expected to occur with a frequency of once in 10 years (30Q10). A discharge that is in compliance with this subsection is exempt from the provisions of subsection 2. Such a discharge may not exceed 175 pounds of color pollutants per ton of unbleached pulp produced after January 1, 2001.

The ND mill has previously demonstrated compliance with the best practicable treatment standard of 175 lbs/ton. This permitting action is carrying forward the technology based limit of 175 pounds per ton of unbleached pulp produced.

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

OUTFALL #001 (Final Effluent)

l. Whole Effluent Toxicity (WET) & Chemical-Specific Testing – Maine law, 38 M.R.S.A., Sections 414-A and 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. Department Rules, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants* set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters. WET, priority pollutant and analytical chemistry testing as required by Chapter 530, is included in this permit in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health AWQC as established in Chapter 584.

Chapter 530 establishes four categories of testing requirements based predominately on the chronic dilution factor. The categories are as follows:

1) Level I – chronic dilution factor of <20:1.
2) Level II – chronic dilution factor of >20:1 but <100:1.
3) Level III – chronic dilution factor >100:1 but <500:1 or >500:1 and Q >1.0 MGD
4) Level IV – chronic dilution >500:1 and Q <1.0 MGD

Department rule Chapter 530 (1)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the permittee's facility falls into the Level III frequency category as the facility has a chronic dilution factor of >100:1 but <500:1. Chapter 530(1)(D)(1) specifies that screening and surveillance level testing requirements are as follows:

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

OUTFALL #001 (Final effluent)

Screening level testing – Beginning when the monthly average bleached or unbleached pulp production is ≥400 tons/day or one year after commencing pulping operations, whichever is sooner, and then again beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the term of the permit) and every five years thereafter.

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 per year	1 per year	4 per year

Surveillance level testing – Will be established after the permittee has completed the screening level testing and the Department has conducted a statistical evaluation on the screening level WET results.

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	TBD	None required	TBD

m. Total Phosphorus – Pursuant to the Department's waste load allocation report entitled, *Penobscot River Phosphorus Waste Load Allocation, February 2011*, the 5/19/11 permitting action established a seasonal (June 1- September 30) monthly average total phosphorus limit of 102 lbs/day based on the permitted flow of 24.4 MGD and a technology based phosphorus concentration of 0.5 mg/L. The calculation is as follows:

24.4 MGD(8.34 lbs/gal)(0.5 mg/L) = 102 lbs/day

The 5/19/11 permit established a four-year schedule of compliance to meet the technology based limitation. The mill ceased pulp and paper operations before coming into compliance with said limitation.

Given the closure of the mills in Millinocket and East Millinocket as well as Lincoln Paper & Tissue which were discharging phosphorus, the assimilative capacity of the Penobscot River has increased and the waste load allocation reported cited above needs to be updated. Until such time it is updated this permit is utilizing a stock reasonable potential analysis to determine if the previous permitted discharge of 102 lbs/day has a reasonable potential to cause or contribute to a violation of water quality standards.

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

OUTFALL #001 (Final effluent)

Waste Discharge License Conditions, 06-096 CMR 523 specifies that water quality based limits are necessary when it has been determined that a discharge has a reasonable potential to cause or contribute to an excursion above any State water quality standard including State narrative criteria.[1] In addition, 06-096 CMR 523 specifies that water quality based limits may be based upon criterion derived from a proposed State criterion, or an explicit State policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: EPA's Water Quality Standards Handbook, October 1983, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current EPA criteria documents.[2]

USEPA's Quality Criteria for Water 1986 (Gold Book) puts forth an in-stream phosphorus concentration goal of less than 0.100 mg/L in streams or other flowing waters not discharging directly to lakes or impoundments, to prevent nuisance algal growth. The use of the 0.100 mg/L Gold Book goal is consistent with the requirements of 06-096 CMR 523 noted above for use in a reasonable potential (RP) calculation.

Based on the above rationale, the Department has chosen to utilize the Gold Book goal of 0.100 mg/L. It is the Department's intent to continue to make determinations of actual attainment or impairment based upon environmental response indicators from specific water bodies. The use of the Gold Book goal of 0.100 mg/L for use in the RP calculation will enable the Department to establish water quality based limits in a manner that is reasonable and that appropriately establishes the potential for impairment, while providing an opportunity to acquire environmental response indicator data, numeric nutrient indicator data, and facility data as needed to refine the establishment of site-specific water quality-based limits for phosphorus. Therefore, this permit may be reopened during the term of the permit to modify any reasonable potential calculation, phosphorus limits, or monitoring requirements based on site-specific data.

For the background concentration in the Penobscot River just upstream of the permittee's discharge, the Department utilized a background concentration of 0.017 mg/L. This value was determined to be representative of background conditions in ambient water quality sampling in the summer of 2014.

As for effluent concentration, this Fact Sheet is utilizing a mean effluent concentration of 1.0 mg/L based the following calculation:

$$\frac{102 \text{ lbs/day}}{12.7 \text{ MGD}(8.34 \text{ lbs/gal})} = 1.0 \text{ mg/L}$$

[1] *Waste Discharge License Conditions,* 06-096 CMR 523(5)(d)(1)(i) (effective date January 12, 2001)
[2] 06-096 CMR 523(5)(d)(1)(vi)(A)

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

OUTFALL #001 (Final effluent)

Using the following calculation, the permittee's facility does not exceed or have a reasonable potential to exceed the EPA's Gold Book value of 0.100 mg/L and the Department's 06-096 CMR Chapter 583 draft criteria of 0.030 mg/L for Class B waters. The calculations are as follows:

$$Cr = \frac{QeCe + QsCs}{Qr}$$

Qe = effluent flow i.e. facility design flow	=	12.7 MGD
Ce = effluent pollutant concentration	=	1.0 mg/L
Qs = 7Q10 flow of receiving water	=	2,037 MGD (3,151 cfs)
Cs = upstream concentration	=	0.017 mg/L
Qr = receiving water flow	=	2,050 MGD
Cr = receiving water concentration	=	?

$$Cr = \frac{(12.7 \text{ MGD} \times 1.0 \text{ mg/L}) + (2{,}037 \text{ MGD} \times 0.017 \text{ mg/L})}{2{,}050 \text{ MGD}} = 0.023 \text{ mg/L}$$

Cr = 0.023 mg/L <0.100 mg/L⇒ **No reasonable potential**
Cr = 0.023 mg/L <0.030 mg/L⇒ **No reasonable potential**

While the given flow value is not to be considered as anything other than a placeholder, it should be noted that even if the permittee was discharging at full waste water treatment capacity of 24.4 MGD, the receiving water concentration would still be less than the Gold Book value and the Department's draft criteria. Therefore, no limitations or monitoring requirements for total phosphorus are being established in this permitting action.

n. Mercury – Pursuant to *Certain deposits and discharges prohibited*, Maine law, 38 M.R.S. § 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), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* on May 25, 2000, to the permittee thereby administratively modifying WDL #W002226-44-D-R by establishing interim monthly average and daily maximum effluent concentration limits of 18.5 parts per trillion (ppt) and 27.8 ppt, respectively, and a minimum monitoring frequency requirement of four (4) tests per year for mercury. It is noted the limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as limitations and monitoring frequencies are regulated separately through 38 M.R.S.§ 413 and 06-096 CMR 519. However, the interim limitations remain in effect.

Maine law 38 M.R.S., §420 1-B, (B)(1) states 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 pursuant to section 413, subsection 11. A review of the Department's data base for the period April 2004 through the present indicates the permittee's mill has demonstrated compliance with the interim limits for mercury as the results have ranged from <1.0 ppt to 15.7 ppt with an arithmetic mean of 6.0 ppt.

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

OUTFALL #100 (Internal waste stream)

Since the permittee is not planning on immediately resuming bleached kraft production, this permit contains a requirement that the permittee provide notice to the Department thirty (30) days prior to beginning such production. See Special Condition M of this permit. Permit requirements imposed below (items n-r) as a result of bleached kraft production will take effect 30 days after the permittee notifies the Department that it intends to resume bleached kraft production. In accordance with federal regulation 40 CFR Part 430, this permitting action is establishing limitations and monitoring requirements for an internal point source, the combined bleach plant filtrates.

o. Flow: The previous permitting action established a monthly average and daily maximum reporting requirement for flow from the bleach plant that are being carried forward in this permitting action. The permit required estimating the flow when sampling for pollutants was required as the permittee demonstrated at that time that installing continuous flow measurement was disproportionate to EPA's cost estimates proposed in the draft regulation due to the age of mill, and the configuration of the bleach plant sewers.

Calculating the flow shall be performed on the same day whenever sampling for the parameters for Outfall #100 of this permit.

A review of the monthly Discharge Monitoring Report (DMR) data for the period April 2009 – November 2010 indicates flows have been reported as follows

Flow

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly average	Report	2.4 – 4.2	3.5
Daily maximum	Report	2.9 – 4.7	3.7

p. 2,3,7,8-TCDD (Dioxin): The previous permitting action established a daily maximum concentration limit of <10 ppq (pg/L) with a monitoring frequency of 2/Quarter for dioxin based on Maine law, 38 M.R.S.A., §420. The limit of 10 pg/L is also the ML (Minimum Level - the level at which the analytical system gives recognizable signals and an acceptable calibration point) for EPA Method 1613B. Federal regulation 40 CFR Part 430 establishes the same limitation and is therefore being carried forward in this permitting action.

Dioxin

Value	Limit (pg/L)	Range (pg/L)	Mean (pg/L)
Daily maximum	Report	<0.2 - <10	0.89

A monitoring frequency to 1/Year is being carried forward in this permit modification.

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

OUTFALL #100 (Internal waste stream)

q. 2,3,7,8 TCDF (Furan): The previous permitting action established a limit of <10 ppq (pg/L) based on Maine law, 38 M.R.S.A., §420. The limit of 10 pg/L is also the ML for furan for EPA Method 1613B. Federal regulation 40 CFR Part 430 establishes a daily maximum concentration limit of 31.9 pg/L. Being that Maine law is more stringent, the limit of <10 pg/L is being carried forward in this permitting action.

Furan

Value	Limit (pg/L)	Range (pg/L)	Mean (pg/L)
Daily maximum	Report	<0.3 – 4.4	1.3

As with dioxin, the monitoring frequency of 1/Year is being carried forward in this permit modification.

r. Twelve Chlorophenolics: The previous permitting established limitations or monitoring requirements for the chlorophenolic compounds based on federal regulation 40 CFR Part 430. The limitations vary from 2.5 ug/L to 5.0 ug/L and are equivalent to the ML for each parameter using EPA Method 1653. A 1/Month monitoring requirement was also established based on the federal regulation. The permittee has never reported a detectable level concentration for any of the compounds tested to date. Therefore, a monitoring frequency of 1/Year is being carried forward in this permit modification to be consistent with the monitoring frequency for other like facilities.

s. Chloroform: The previous permitting action established monthly average and daily maximum mass limits for chloroform based on federal regulation found at 40 CFR Part 430. The regulation establishes production based BAT monthly average and daily maximum allowances of 4.14 g/kkg and 6.92 g/kkg respectively, of unbleached pulp production. With an unbleached kraft pulp production to be 794 tons/day the limits were calculated as follows:
(794 tons/day)(4.14 g/kkg)(0.907 kkg/ton)(1.0 lbs/ 454g) = 6.56 lbs /day
(794 tons/day)(6.92 g/kkg)(0.907 kkg/ton)(1.0 lbs/ 454g) = 10.9 lbs /day

On July 16, 2004, the Department modified the permitee's MEPDES permit by suspending the monitoring requirement for chloroform in lieu of a certification pursuant to federal regulation 40 CFR Part 430.02(f). The permittee conducted a statistical evaluation of historic values for pH, kappa numbers and chlorine dioxide use to establish a correlation between the said parameters and chloroform levels. Daily monitoring of the surrogate parameters can be used to estimate chloroform values. The permittee has indicated the 2004 statistical evaluation remains representative of the manufacturing process today and therefore the certification remains applicable. Should the monitoring of the surrogate parameters indicate more than a minor statistically difference from the 2004 levels, the permittee will be required to either monitor for chloroform or conduct another statistical evaluation on at least 104 data points collected over a two-year period for another certification.

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

OUTFALL #002 (Non-Contact Cooling, Condensate)

t. Flow: The previous permitting action established a monthly average limit of 3.0 MGD that is being replaced with a reporting requirement in this permitting action. The limit is being removed to provide the permittee with the flexibility to route additional non-contact cooling waters to this outfall if need be. A review of the Discharge Monitoring Report (DMR) data for the period January 1, 1999 to the issuance of the 2011 permit indicates actual flows have averaged approximately 3.0 MGD.

u. Temperature: The previous permitting action established a year year-round daily maximum effluent temperature limit of 115 ^{o}F that is being carried forward in this permitting action and remains representative of the discharge.

v. Thermal load – See the discussion under section 5(g) above.

OUTFALL #003 (Filter Backwash)

w. pH Range: The licensing action prior to the 2011 permit established a pH range limit of 5.0 – 9.0 standard units that was based on federal regulation 40 CFR, Part 430. This permitting action is carrying the limit forward and continues to be consistent with the federal effluent guidelines.

x. Flow: The licensing action prior to the 2011 permit did not establish any limitations or monitoring requirements for flow. This permitting action is establishing a monthly average and daily maximum reporting requirement in an effort to obtain flow information necessary to calculate mass loadings for total suspended solids (TSS).

y. Total Suspended Solids: The licensing action prior to the 2011 permit established monthly average and daily maximum concentration limits of 20 mg/L and 60 mg/L respectively, that are being replaced with a reporting requirement in this permitting action. The Department expects that the normal operation of the filter backwash plant will achieve concentration levels within the range of 20 mg/L as a monthly average and 60 mg/L as a daily maximum. If the permittee's testing indicates consistent values outside of this range, appropriate concentration limits may be established in this permit in the future. This permitting action establishing new monthly average and daily maximum mass limitations for mass to be consistent with federal regulation 40 CFR, Part 122.45(f), that states parameters such as TSS must be limited by mass in permits. The monthly average limit of 336 lbs/day was derived based on a daily maximum flow of 2.0 MGD and 20 mg/L and the daily maximum limit of 1,001 lbs/day was derived based on a monthly average flow of 2.0 MGD and 60 mg/L. Monthly average and daily maximum flow of 2.0 MGD used in the calculations are representative of the flows currently being discharged for the three periods 1999 – 2001.

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

OUTFALL #003 (Filter Backwash)

z. pH Range - The licensing action prior to the 2011 permit established a pH range limit of 5.0 – 9.0 standard units that was based on federal regulation 40 CFR, Part 430. This permitting action is carrying the limit forward and continues to be consistent with the federal effluent guidelines.

6. BEST MANAGEMENT PRACTICES PLAN

Best Management Practices (BMPs) are specified at 40 CFR 430.03(d). The primary objective of the Best Management Practices is to prevent leaks and spills of spent pulping liquors, soap, and turpentine. The secondary objective is to contain, collect, and recover at the immediate process area, or otherwise control, those leaks, spills, and intentional diversions of spent pulping liquor, soap and turpentine that do occur. Toward those objectives, the permittee must implement the Best Management Practices (BMPs) specified in 40 CFR 430.03 (c). The BMP conditions established in Special Condition H of the permit are recommended by EPA Headquarters via a May 2000 Permit Guidance Document for the Pulp, Paper and Paperboard Manufacturing Point Source Category.

7. ANTI-BACKSLIDING

Federal regulation 40 CFR, §122(l) contains the criteria for what is often referred to as the anti-backsliding provisions of the Federal Water Pollution Control Act (Clean Water Act). In general, the regulation states that except for provisions specified in the regulation, effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards or conditions in the previous permit. Applicable exceptions include (1) material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation and (2) information is available which was not available at the time of the permit issuance (other than revised regulations, guidance or test methods) and which would justify the application of less stringent effluent limitations at the time of permit issuance.

This permit is establishing limitations equivalent to the limitations in the 5/19/11 permit issued to Red Shield but less stringent than the limitations for flow, BOD and TSS established in the 10/12/16 permit issued to MFGR LLC. The MFGR LLC permit did not take into consideration waste water from pulp and paper manufacturing facility. Therefore, the start-up of the pulp and paper manufacturing facility is considered new information that was not available at the time of the 10/12/16 permit.

8. ANTI-DEGREDATION - IMPACT ON RECEIVING WATER QUALITY

Maine's anti-degradation policy is included in 38 M.R.S., Section 464(4)(F) and addressed in the *Conclusions* section of this permit. Pursuant to the policy, where a new or increased discharge is proposed, the Department shall determine whether the discharge will result in a significant lowering of existing water quality. Increased discharge means a discharge that would add one or more new pollutants to an existing effluent, increase existing levels of pollutants in an effluent, or cause an effluent to exceed one or more of its current licensed discharge flow or effluent limits, after the application of applicable best practicable treatment technology.

8. ANTI-DEGREDATION - IMPACT ON RECEIVING WATER QUALITY

The Department has modeled the increase in the BOD loaded from the restart of the pulp and paper mill and determined that the reduction in the ambient dissolved oxygen is limited to 0.05 mg/L which is significantly below the accuracy (±0.2 mg/L) of the instrumentation used to measure dissolved oxygen.

The Department has made the determination that authorizing these less stringent limitations will not cause or contribute to failure of the receiving water to meet the standards of its assigned classification and will meet the State's antidegradation policy.

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 Penobscot River to meet standards of its assigned Class B classification. In addition, the Department has made the determination that water quality standards established in State law are protective of all cold water fish populations and that effluent monitoring of the discharge and ambient water quality monitoring of the receiving waters required by this permit serve as an interim Habitat Conservation Plan (HCP).

9. PUBLIC COMMENTS

Public notice of this application was made in the Bangor Daily newspaper on or about October 24, 2018**.** The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

10. DEPARTMENT CONTACTS

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

Gregg Wood
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
Telephone: (207) 287-3901
Electronic mail : gregg.wood@maine.gov

11. RESPONSE TO COMMENTS

Reserved until the close of the 30-day public comment period.