STATE OF MAINE

Department of Environmental Protection

Paul R. LePage
GOVERNOR

Patricia W. Aho
COMMISSIONER

December 20, 2013

Mr. Richard L. Dickinson
Director, Environmental Services
Tate & Lyle Ingredients Americas LLC
2200 East Eldorado Street
Decatur, IL. 62525

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0002216
Maine Waste Discharge License #W000940-5N-I-R
Final Permit

Dear Mr. Dickinson:

Enclosed please find a copy of your **final** MEPDES permit/WDL which was approved by the Department of Environmental Protection. Please read the permit and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality

Enc.
cc: Sean Bernard, DEP/NMRO
Brenda Commander, Houlton Band of Maliseets
Sandy Mojica, USEPA

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

DEPARTMENT ORDER

IN THE MATTER OF

TATE & LYLE INGREDIENTS AMERICAS LLC	)	MAINE POLLUTANT DISCHARGE
HOULTON, AROOSTOOK COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
STARCH PROCESSING FACILITY	)	AND
ME0002216	)	WASTE DISCHARGE LICENSE
W000940-5N-I-R **APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the *Federal Water Pollution Control Act*, Title 33 USC, §1251, *Conditions of licenses*, 38 M.R.S.A. § 414-A, and applicable regulations, the Maine Department of Environmental Protection (Department hereinafter) has considered the application of TATE & LYLE INGREDIENTS AMERICAS LLC (Tate & Lyle/permittee hereinafter), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

Tate & Lyle has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME002216/ Maine Waste Discharge License (WDL) #W000940-5N-E-R (permit hereinafter) which was issued by the Department on June 17, 2008, for a five-year term. The 6/17/08 permit authorized the discharge of: (1) 0.04 million gallons per day (MGD) of boiler blowdown and process waste waters to the Meduxnekeag River, Class B, via Outfall #001; (2) 0.05 MGD of non-contact cooling waters to the Meduxnekeag River, Class B, via Outfall #002; and (3) non-contact cooling water and boiler blowdown and process waste waters to ground water, Class GW-A, via a surface wastewater disposal system (spray irrigation) at a weekly average rate of up to 40,728 gallons per acre per week and a daily maximum rate of up to 20,362 gallons per acre per day. All discharges are located in Houlton, Maine. Tate & Lyle has applied for authorization to spray irrigate non-contact cooling waters and boiler blowdown/process waste waters via the spray irrigation system.

On December 29, 2008, the Department issued a minor revision to the 6/17/08 permit that changed the numeric limits for sodium and sulfate to "report" only. Another minor revision to the 6/17/08 permit was issued on December 8, 2009, that served to further clarify the applicability of certain effluent limitations, monitoring requirements and discharge restrictions in Special Condition A of said permit. One additional minor revision to the 6/17/08 permit was issued on February 6, 2012, that reduced the monitoring frequency for mercury from 4/Year to 1/Year based on a revised statute found at Maine law 38 M.R.S.A., §420, sub-¶F.

PERMIT SUMMARY

This permitting action is carrying forward all the terms and conditions of the 6/17/13, 12/29/08, 12/8/09 and 2/6/12 permitting actions except this permit is:

1. Revising the minimum flow regime in which the facility is authorized to discharge during the non-summer months. More specifically, this permit limits the discharge to times when the receiving water is ≥15 cfs rather than authorizing the discharges at 7Q10 (3.1 cfs).

2. Increasing the acute, chronic and harmonic mean dilution factors associated with the minimum receiving water flow of 15 cfs.

3. Establishing a new flow regime and corresponding effluent limitations associated with a minimum receiving water flow of 50 cfs.

4. Waiving surveillance level whole effluent toxicity (WET) and analytical chemistry test during the first three and fifth years of the term of the permit given the facility is now categorized as a Level III facility rather than a Level II facility pursuant to 06-096 CMR Chapter 530, *Surface Water Toxics Control Program.*

5. Reducing the number of ground water monitoring wells from 12 wells to 6 wells and reducing the monitoring frequency from 3/Year to 2/Year given the extensive history of ground water monitoring of the site.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated August 9, 2013, and subject to the Conditions listed below, the Department makes the following conclusions:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.

3. The provisions of the State's antidegradation policy, *Classification of Maine waters*, 38 M.R.S.A. § 464(4)(F), will be met, in that:

   (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   (b) Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;

   (c) Where the standards of classification of the receiving water body are met or not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

   (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and

   (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

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

ACTION

THEREFORE, the Department APPROVES the above noted application of TATE & LYLE INGREDIENTS AMERICAS LLC to discharge a monthly average of up to 0.12 MGD of boiler blowdown and process waste waters and 0.05 MGD of non-contact cooling waters to the Meduxnekeag River, Class B, and to operate a surface wastewater disposal system that uses spray irrigation to discharge a weekly maximum of up to 40,728 gallons per acre per week of boiler blowdown and process waste waters or non-contact cooling waters during the period of May 15 – November 15 of each year, depending on weather and site conditions, to the soil above ground water resources of the State, Class GW-A, 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 any effluent limitations and monitoring requirements.

3. This permit becomes effective upon the date of signature below and expires at midnight five (5) after that date. If a renewal application is timely submitted and accepted as complete for processing prior to the expiration of the this permit, the terms and conditions of this permit and all subsequent modifications and minor revisions thereto remain in effect until a final Department decision on the renewal application becomes effective. [*Maine Administrative Procedure Act*, 5 M.R.S.A. § 10002 and *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(21)(A) (effective April 1, 2003)].

DONE AND DATED AT AUGUSTA, MAINE, THIS 20th DAY OF December, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Michael Kuhns
for Patricia W. Aho, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 19, 2013

Date of application acceptance: March 25, 2013

Filed
DEC 20 2013
State of Maine
Board of Environmental Protection

Date filed with Board of Environmental Protection: _____.

This Order prepared by Gregg Wood, BUREAU OF LAND & WATER QUALITY

ME0002216 2013 12/20/13

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge **boiler blowdown and process waste waters via Outfall #001A** to the Meduxnekeag River **at times when the river flow is ≥ 15 cfs.** Such discharges shall be limited and monitored by the permittee as specified below[1]: The italicized numeric values bracketed in the table and in subsequent text are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports.

Effluent Characteristic	Effluent Limitations					Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	---	---	60,000 gpd *[07]*	---	Report gpd *[07]*	Continuous *[99/99]*	Recorder *[RC]*
BOD5 ***(June 1 – Sept 30)*** ***(October 1 – May 31)*** *[00310]*	54 lbs/day 75 lbs/day *[26]*	67 lbs/day 134 lbs/day *[26]*	243 mg/L 338 mg/L *[19]*	--- ---	300 mg/L 599 mg/L *[19]*	1/Week 1/Week *[01/07]*	24-Hr. Composite *[24]*
TSS *[00530]*	63 lbs/day *[26]*	126 lbs/day *[26]*	284 mg/L *[19]*	---	567 mg/L *[19]*	1/Week *[01/07]*	24-Hr. Composite *[24]*
Total Phosphorous[2] ***(June 1 – Sept 15)*** *[00665]*	0.17 lbs/day *[26]*	Report lbs/day *[26]*	0.5 mg/L *[19]*	---	Report mg/L *[19]*	2/Week *[02/07]*	24-Hr. Composite *[24]*
River Flow[3] *[00060]*	---	---	Report cfs *[08]*	15 cfs *[08]*	Report cfs *[08]*	1/Day *[01/01]*	Measure *[MS]*
Dissolved Oxygen[4] ***(June 1 – Sept 15)*** *[00300]*	---	---	---	7 PPM *[20]*	---	1/Day *[01/01]*	Grab *[GR]*
Dissolved Oxygen[4] ***(June 1 – Sept 15)*** *[00300]*	---	---	---	7.3 PPM *[20]*	---	1/Day *[01/01]*	Grab *[GR]*
Temperature *[00011]*	---	---	---	32°C *[04]*	---	1/Day *[01/01]*	Grab *[GR]*
Mercury (Total) [5] *[71900]*	---	---	16.5 ng/L *[3M]*	---	24.8 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*
pH *[00400]*	---	---	---	---	6.0-9.0 SU *[12]*	1/Day *[01/01]*	Grab *[GR]*

FOOTNOTES: See pages 12-17 of this permit for the applicable footnotes.

SPECIAL CONDITIONS

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

2. The permittee is authorized to discharge **boiler blowdown and process waste waters via Outfall #001A** to the Meduxnekeag River **at times when the river flow is ≥ 50 cfs.** Such discharges shall be limited and monitored by the permittee as specified below[1]:

Effluent Characteristic	Effluent Limitations					Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Minimum	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	---	---	120,000 gpd *[07]*	---	Report gpd *[07]*	Continuous *[99/99]*	Recorder *[RC]*
BOD_5 *(June 1 – Sept 30)*	108 lbs/day *[26]*	134 lbs/day *[26]*	243 mg/L *[19]*	---	300 mg/L *[19]*	1/Week *[01/07]*	24-Hr. Composite *[24]*
(October 1 – May 31) *[00310]*	150 lbs/day *[26]*	268 lbs/day *[26]*	338 mg/L *[19]*	---	599 mg/L *[19]*	1/Week *[02/07]*	
TSS *[00530]*	126 lbs/day *[26]*	252 lbs/day *[26]*	284 mg/L *[19]*	---	567 mg/L *[19]*	1/Week *[01/07]*	24-Hr. Composite *[24]*
Total Phosphorous[2] *(June 1 – Sept 15) [00665]*	0.34 lbs/day *[26]*	Report lbs/day *[26]*	0.5 mg/L *[19]*	---	Report mg/L *[19]*	1/Week *[02/07]*	24-Hr. Composite *[24]*
River Flow[3] *[00060]*	---	---	Report cfs *[08]*	50 cfs *[08]*	Report cfs *[08]*	1/Day *[01/01]*	Measure *[MS]*
Dissolved Oxygen[4] *(June 1 – Sept 15) [00300]*	---	---	---	Report PPM *[20]*	---	1/Day *[01/01]*	Grab *[GR]*
Dissolved Oxygen[4] *(June 1 – Sept 15) [00300]*	---	---	---	Report PPM *[20]*	---	1/Day *[01/01]*	rab *[GR]*
Temperature *[00011]*	---	---	---	32°C *[04]*	---	1/Day *[01/01]*	Grab *[GR]*
Mercury (Total) [5] *[71900]*	---	---	16.5 ng/L *[3M]*	---	24.8 ng/L *[3M]*	1/Year *[01/YR]*	Grab *[GR]*
pH *[00400]*	---	---	---	---	6.0-9.0 SU *[12]*	1/Day *[01/01]*	Grab *[GR]*

FOOTNOTES: See Pages 12-17 of this permit for the applicable footnotes.

SPECIAL CONDITIONS

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

3. Whole effluent toxicity, analytical chemistry and priority pollutant testing requirements for **Outfall #001A**[1].

SCREENING LEVEL - Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

Effluent Characteristic	Effluent Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity [6]						
Acute – NOEL						
Ceriodaphnia dubia (Water flea) *[TDA3B]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Salvelinus fontinalis (Brook trout) *[TDA6F]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Chronic – NOEL						
Ceriodaphnia dubia (Water flea) *[TBP3B]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Salvelinus fontinalis (Brook trout) *[TBQ6F]*	---	---	---	Report % *[23]*	1/Year *[01/YR]*	Composite *[24]*
Analytical Chemistry [7,9] *[51477]*	---	---	---	Report ug/L *[28]*	1/Quarter *[01/90]*	Composite/Grab *[24]*
Priority Pollutant [8,9] *[50008]*	---	---	---	Report ug/L *[28]*	1/Year *[01/YR]*	Composite/Grab *[24]*

FOOTNOTES: **See Pages 12-17 of this permit for applicable footnotes.**

SPECIAL CONDITIONS

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

4. The permittee is authorized to discharge **non-contact cooling waters via Outfall #002A** to the Meduxnekeag River. Such discharges shall be limited and monitored by the permittee as specified below[1]:

Effluent Characteristic	Effluent Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	---	---	50,000 gpd *[07]*	Report gpd *[07]*	Continuous *[99/99]*	Recorder *[RC]*
Temperature *[00011]*	---	---	---	30°C *[04]*	1/Day *[01/01]*	Grab *[GR]*
pH *[00400]*	---	---	---	6.0-9.0 SU *[12]*	1/Day *[01/01]*	Grab *[GR]*

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

FOOTNOTES: See Pages 12-17 of this permit for the applicable footnotes.

SPECIAL CONDITIONS

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

5. The permittee is authorized to discharge **boiler blowdown and process waste waters** during **May 15 through November 15** via **Outfall #003A through spray irrigation**(10). Such discharges shall be limited and monitored by the permittee as specified below(1):

Monitoring Characteristic	Monitoring Requirements		Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	---	Report gpd *[07]*	Daily When Discharging *[WH/DS]*	Calculate *[CA]*
BOD_5 *[00310]*	---	Report mg/L *[19]*	1/Month(11) *[01/30]*	8-Hr. Composite(12) *[08]*
Nitrate-Nitrogen (NO_3) *[00620]*	---	Report mg/L *[19]*	1/Month(11) *[01/30]*	8-Hr. Composite(12) *[08]*
Total Ammonia Nitrogen (as N) *[00610]*	---	Report mg/L *[19]*	1/Month(11) *[01/30]*	8-Hr. Composite(12) *[08]*
Total Kjeldahl Nitrogen *[00625]*	---	Report mg/L *[19]*	1/Month(11) *[01/30]*	8-Hr. Composite(12) *[08]*
Sodium (Total, as Na) *[00929]*	---	Report mg/L *[19]*	1/Month(11) *[01/30]*	8-Hr. Composite(12) *[08]*
Sulfate (SO_4) *[00945]*	---	Report mg/L *[19]*	1/Month(11) *[01/30]*	8-Hr. Composite(12) *[08]*
pH *[00400]*	---	6.0 – 9.0 SU *[12]*	1/Month(11) *[01/30]*	Grab *[GR]*

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

FOOTNOTES: See Pages 12-17 of this permit for the applicable footnotes.

SPECIAL CONDITIONS

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

6. The permittee is authorized to operate a surface wastewater treatment and disposal system for **boiler blowdown and process waste waters** from **May 15 through November 15**. Application of waste waters to **SPRAY IRRIGATION FIELD (SF-1)** shall be limited and monitored as specified below[1]:

Effluent Characteristic	Effluent Limitations			Minimum Monitoring Requirements	
	Monthly Total	Weekly Maximum	Daily Maximum	Measurement Frequency	Sample Type
Application Rate (Weekly) *[51125]*	---	40,728 gal/acre/week[13] *[8B]*	---	1/Week *[01/07]*	Calculate *[CA]*
Application Rate (Daily) *[51124]*	---	---	20,362 gal/acre/day[13] *[8B]*	1/Day *[01/01]*	Calculate *[CA]*
Flow – Total Gallons *[51500]*	Report (Gallons) *[57]*	---	---	1/Month *[01/30]*	Calculate *[CA]*

7. The permittee is authorized to operate a surface wastewater treatment and disposal system for **non-contact cooling waters** from **May 15 through November 15**. The **SPRAY IRRIGATION FIELD (SF-2)** shall be limited and monitored as specified below[1]:

Effluent Characteristic	Effluent Limitations			Minimum Monitoring Requirements	
	Monthly Total	Weekly Maximum	Daily Maximum	Measurement Frequency	Sample Type
Application Rate (Weekly) *[01287]*	---	40,728 gal/acre/week[13] *[8B]*	---	1/Week *[01/07]*	Calculate *[CA]*
Application Rate (Daily) *[01284]*	---	---	20,362 gal/acre/day[13] *[8B]*	1/Day *[01/01]*	Calculate *[CA]*
Flow – Total Gallons *[82220]*	Report (Gallons) *[80]*	---	---	1/Month *[01/30]*	Calculate *[CA]*

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

FOOTNOTES: See Pages 12-17 of this permit for the applicable footnotes.

SPECIAL CONDITIONS

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

8. The permittee shall monitor the ground water conditions in **GROUND WATER MONITORING WELLS MW-1, MW-3A, MW-3B, MW-5B,TW-5 and TW-6** as specified below[1]:

Effluent Characteristic	Effluent Limitations		Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Nitrate-Nitrogen (NO_3) *[00620]*	---	10 mg/L[16] *[19]*	2/year[14] *[02/YR]*	Grab *[GR]*
Total Ammonia Nitrogen (as N) *[00610]*	---	Report mg/L *[19]*	2/year[14] *[02/YR]*	Grab *[GR]*
Total Kjeldahl Nitrogen (TKN) *[00625]*	---	Report mg/L *[19]*	2/year[14] *[02/YR]*	Grab *[GR]*
Specific Conductance *[00095]*	---	Report umhos/cm[15] *[11]*	2/year[14] *[02/YR]*	Grab *[GR]*
Sodium (Total, as Na) *[00929]*	---	Report mg/L[16] *[19]*	2/year[14] *[02/YR]*	Grab *[GR]*
Sulfate (SO_4) *[00945]*	---	Report mg/L[16] *[19]*	2/year[14] *[02/YR]*	Grab *[GR]*
Temperature (°F) *[00011]*	---	Report °F[15] *[15]*	2/year[14] *[02/YR]*	Grab *[GR]*
pH (Standard Units) *[00400]*	---	6.0 – 9.0 SU[15] *[12]*	2/year[14] *[02/YR]*	Grab *[GR]*

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

FOOTNOTES: See Pages 12-17 of this permit for the applicable footnotes.

SPECIAL CONDITIONS

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

FOOTNOTES:

1. **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. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 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).

   All analytical test results shall be reported to the Department including results which are detected below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. See **Attachment A** of this permit for a list of the Department's RLs. If a non-detect analytical test result is below the respective RL, the concentration result shall be reported as <Y where Y is the RL achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL or reporting an estimated value ("J" flagged) is not acceptable and will be rejected by the Department. Reporting analytical data and its use in calculations must follow established Department guidelines specified in this permit or in available Department guidance documents.

2. **Total Phosphorus** – Total phosphorus monitoring shall be performed in accordance with **Attachment B** of this permit entitled, *Protocol For Total P Sample Collection and Analysis for Waste Water and Receiving Water Monitoring Required by Permits,* June 2007 unless otherwise specified by the Department.

3. **River Flow Monitoring** – The permittee shall monitor and record flow in the Meduxnekeag River each day when Tate & Lyle discharges or intends to discharge via Outfall #001A. **The permittee is not authorized to discharge via Outfall #001A when the flow in the Meduxnekeag River at Outfall #001A is less than 15 cubic feet per second (cfs) at the permittee's river flow gauge located in the immediate vicinity of Outfall #001A, unless otherwise restricted through modification of this permit based on new information.** The permittee shall submit a monthly average value, along with a monthly maximum and minimum value on the Discharge Monitoring Report, expressed as cfs. The river flow gauge shall be calibrated at least once annually and calibration records shall be retained for Department inspection for a period of at least three years.

SPECIAL CONDITIONS

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

FOOTNOTES:

4. **Ambient Dissolved Oxygen Monitoring** – The permittee shall monitor and record in-stream dissolved oxygen (DO) concentrations daily during the period of June 1 through September 15 when Tate & Lyle discharges or intends to discharge via Outfall #001A. The first DO monitoring site is located at the Cary's Mills Bridge upriver of the confluence of the main stem of the Meduxnekeag and its South Branch. The second DO monitoring site is located immediately upriver of the Houlton publicly owned wastewater treatment works (POTW) outfalls. **Sampling for dissolved oxygen shall begin within ½ hour of sunrise, provided there is enough light to safely sample, and no later than 2.0 hours after sunrise. The permittee is not authorized to discharge via Outfall #001A when DO concentrations fall below 7 ppm at the Cary's Mills Bridge monitoring site or below 7.3 ppm at the Houlton POTW monitoring site during the period of June 1 through September 15, unless otherwise specified through modification of this permit based on new information.**

5. **Mercury** – The permittee shall conduct all mercury sampling 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 shall 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** 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.

6. **Whole effluent toxicity (WET) testing** – Definitive WET testing is a multi-concentration testing event [a minimum of five dilutions bracketing the applicable critical acute and chronic thresholds of 0.6%], which provides an 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. The critical acute and chronic thresholds were derived as the mathematical inverse of the applicable acute and chronic dilution factor of 163:1 for Outfall #001A.

SPECIAL CONDITIONS

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

FOOTNOTES:

a. **Surveillance level testing** – Pursuant to 06-096 CMR Chapter 530 §(2)(d)(3)(b), surveillance level testing is waived.

b. **Screening level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct screening level WET testing at a minimum frequency of once per year for the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis).*

WET 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 toxicity reports for up to 10 business days of their availability before submitting them. The permittee shall evaluate test results being submitted and identify to the Department possible exceedences of the applicable critical acute and chronic water quality thresholds of 0.6%.

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.

1. 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.

2. 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.

Results of WET tests shall be reported on the "Whole Effluent Toxicity Report – Fresh Waters" form included as **Attachment D** of this permit each time a WET test is performed. The permittee is required to analyze the effluent for the analytical chemistry parameters specified on the "WET and Chemical Specific Data Report Form" form included as **Attachment A** of this permit each time a WET test is performed.

SPECIAL CONDITIONS

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

FOOTNOTES:

7. **Analytical chemistry** – Refers to a suite of chemicals in **Attachment A** of this permit.

   a. **Surveillance level testing** – Pursuant to 06-096 CMR Chapter 530 §(2)(d)(3)(b), surveillance level testing is waived.

   b. **Screening level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct analytical chemistry testing at a minimum frequency of once per calendar quarter for four consecutive calendar quarters.

8. **Priority pollutant testing** – Refers to a suite of chemicals in **Attachment A** of this permit.

   a. **Surveillance level** - Testing is not required pursuant to 06-096 CMR 530.

   b. **Screening level testing** – Beginning 24 months prior to permit expiration and lasting through 12 months prior to permit expiration (Year 4 of the permit) and every five years thereafter if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once per year.

9. **Priority pollutant and analytical chemistry testing** - Shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests when applicable. Priority pollutant and analytical chemistry testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. See **Attachment A** of this permit for a list of the Department's reporting levels (RLs) of detection. All test results, even those detected below the Department's reporting limit shall be reported to the Department. 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 toxicity reports for up to 10 business days of their receipt from the laboratory conducting the testing before submitting them. The permittee shall evaluate test results being submitted and identify to the Department, possible exceedences of the acute, chronic or human health AWQC as established in Department rule Chapter 584 *Surface Water Quality Criteria for Toxic Pollutants.* For the purposes of DMR reporting, enter a "1" for yes, testing done this monitoring period or "NODI-9" monitoring not required this period.

SPECIAL CONDITIONS

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

FOOTNOTES:

10. **Spray Irrigation of Boiler Blowdown and Process Waste Waters** – Prior to applying boiler blowdown and process waste waters via Outfall #003A to spray irrigation field SF-1, the permittee shall demonstrate to the Department's satisfaction through ground water monitoring results that the ground water levels of sodium, sulfate and nitrate nitrogen are below the specified action levels for these pollutants. See footnote #16 of this permit. **Spray irrigation of blowdown and process waste waters is authorized only following written Department approval**, and specific approval must be requested for each spray irrigation season.

11. **Monitoring Period for Outfall #003A** – The permittee shall monitor for the specified parameters during the period of May 15 – November 15 of each year. For months when the permittee does not discharge via Outfall #003A during the authorized discharge period, the permittee shall enter "NODI-9" on the monthly DMR.

12. **Composite Samples** – Composite samples shall consist of four grab samples collected two hours apart during an eight-hour period in which wastewater is discharged via Outfall #003A.

13. **Weekly Maximum for Spray Irrigation** – "Weekly" is defined as Sunday through Saturday. A field's daily or weekly application rate is the total gallons sprayed over the applicable period of time divided by the size of the area of the field(s) utilized. Note: 27,152 gallons is equivalent to one acre-inch. The permittee shall measure the flow of waste water to the irrigation area by the use of a flow measuring device that is checked for calibration at least once per calendar year. For Discharge Monitoring Report (DMR) reporting purposes, the permittee shall report the highest weekly and daily application rates for the month in the applicable boxes on the form. Compliance with weekly reporting requirements must be reported for the month in which the calendar week ends. It is noted that SF-1 and SF-2 are the same spray irrigation field. The Department has assigned separate identification numbers to differentiate between the spray application of boiler blowdown and process waste waters (SF-1) and non-contact cooling waters (SF-2).

14. **Ground Water Monitoring Period** – Monitoring wells shall be sampled during the months of **April and August** of each year, unless otherwise specified by the Department.

15. **Field Measurements** – Specific conductance (calibrated to 25.0° C), temperature, and pH are considered to be "field" parameters, and are to be measured in the field via instrumentation. The permittee is required to test for these parameters whether waste water was disposed of via the spray-irrigation system or not.

SPECIAL CONDITIONS

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

FOOTNOTES:

16. **Sodium, Sulfate, and Nitrate-Nitrogen Action Levels for Ground Water Monitoring** – Actions levels for sodium, sulfate and nitrate-nitrogen of 120 mg/L, 250 mg/L, and 10 mg/L, respectively, are in effect through the term of this permit. If ground water monitoring well samples indicate levels above any action level, the permittee shall immediately cease the spray irrigation of boiler blowdown and process waste waters on any areas up-gradient of the monitoring well(s) demonstrating the elevated level(s), until such time that ground water monitoring indicates that levels have fallen below the respective action levels. In addition, within 60 days of the occurrence(s), the permittee shall provide a report to the Department documenting the occurrence(s), addressing the cause(s) of the occurrence(s), and a course of action and implementation schedule for resolving the cause(s). This discharge restriction does not apply to the spray irrigation of non-contact cooling waters (SF-2).

B. NARRATIVE EFFLUENT LIMITATIONS

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

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

3. The discharge shall not cause visible discoloration or turbidity in the receiving waters, which would impair the usages designated for the classification of the receiving waters.

4. Notwithstanding specific conditions of this 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.

C. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a minimum of a **Grade IIIB** certificate (or Registered Maine Professional Engineer) pursuant to *Sewerage Treatment Operators*, 32 M.R.S.A. §§ 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.

SPECIAL CONDITIONS

D. AUTHORIZED DISCHARGES

The permittee is authorized to discharge only: 1) in accordance with the permittee's General Application for Waste Discharge License, accepted for processing on March 25, 2013; 2) in accordance with the terms and conditions of this permit; and 3) via Outfall #001A, #002A, and to the spray irrigation disposal field identified in the Waste Discharge Permit application [boiler blowdown and process waste waters to SF-1 via Outfall #003A following written Department approval for each spray season and non-contact cooling waters to SF-2]. Discharges of wastewater from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5), *Bypasses*, of this permit.

E. NOTIFICATION REQUIREMENT

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

1. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall include information on:

   (a) the quality and quantity of waste water introduced to the waste water collection and treatment system; and

   (b) any anticipated impact caused by the change in the quantity or quality of the waste water to be discharged from the treatment system.

F. GENERAL OPERATIONAL CONSTRAINTS

1. All waste waters (except non-contact cooling waters) shall receive biological treatment through a properly designed, operated and maintained treatment system prior to disposal via spray irrigation.
2. The spray irrigation facilities shall be effectively maintained and operated at all times so that there is no discharge to surface waters (resulting from spray irrigation activities), nor any contamination of ground water which will render it unsatisfactory for usage as a public drinking water supply.
3. The surface waste water disposal system shall not cause the lowering of the quality of the ground water, as measured in the ground water monitoring wells specified by this license, below the State Primary and Secondary Drinking Water Standards specified in the Maine State Drinking Water Regulations pursuant to 22 M.R.S.A. § 2601.
4. In the event the ground water monitoring results indicate adverse effects, the permittee may be required to take immediate remedial action(s), which may include but are not limited to, adjustment of the irrigation schedule or application rates, a reduction of the pollutant loading, or ceasing operation of the system until the ground water attains applicable standards.

SPECIAL CONDITIONS

F. GENERAL OPERATIONAL CONSTRAINTS (cont'd)

5. The permittee shall maintain a file on the location of all system components and relevant features. Each component shall be mapped and field located sufficiently to allow adequate inspections and monitoring by both the licensee and the Department.

6. System components including collection pipes, tanks, manholes, pumps, pumping stations, spray disposal fields, and monitoring wells shall be identified and referenced by a unique system identifier in all logs and reports.

7. The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities. **Within one hour after start-up of the spray-irrigation system,** the permittee shall inspect the spray-irrigation site or have other means to check the system for leakage in the piping system and determine if individual sprayheads and pump(s) are functioning as designed, and verify that application rates are appropriate for the existing site conditions. The procedures used to determine the system is functioning as designed shall be described in the facility's Operations and Maintenance (O&M) manual. See Special Condition J of this permit. Should significant malfunctions or leaks be detected, the permittee must shut down the malfunctioning/leaking sections of the spray system and make necessary repairs before resuming operation. The permittee shall cease irrigation if runoff is observed outside the designated boundaries of the spray field(s). The permittee should field calibrate equipment to ensure proper and uniform spray applications when operating. Calibration involves collecting and measuring application rates at different locations within the application area. Spray nozzles should be calibrated annually in order to assure proper spray irrigation rates. A description of the calibration procedures and a log sheet that has been used for recording calibration results shall be included as part of the Operations & Maintenance manual.

8. **The permittee shall maintain a daily log** of all spray irrigation activities which records the date, weather, rainfall, areas irrigated, volume sprayed (gallons), application rates (daily and weekly), and other relevant observations/comments from daily inspections. The log shall be in accordance with the general format of the *"Monthly Operations Log"* provided as **Attachment E** of this license, or other similar format approved by the Department. Weekly application rates shall be reported in accordance with the general format of the *"Spray Application Report by Week"* provided as **Attachment F** of this license or other format as approved by the Department. The *Monthly Operations Log, and Spray Application Report by Week,* for each month shall be submitted to the Department as an attachment to the monthly Discharge Monitoring Reports (DMRs) in a format approved by the Department. Copies will also be maintained on site for Department review and for license operation maintenance purposes.

SPECIAL CONDITIONS

G. SPRAY IRRIGATION OPERATIONAL CONSTRAINTS, LOGS AND REPORTS

1. Suitable vegetative cover shall be maintained. Waste water (as liquid spray irrigation) shall not be applied to areas without sufficient vegetation or ground cover as to prevent erosion or surface water runoff outside the designated boundaries of the spray fields. The permittee shall have an updated facilities management plan that includes provisions for maintaining the spray irrigation area in optimum condition for the uptake of nutrients and moisture holding capacity.
2. At least 10 inches of separation from the ground surface to the ground water table shall be present prior to spray irrigation.
3. No waste water shall be spray irrigated as liquid following a rainfall accumulation exceeding 1.0 inch within the previous 24-hour period. A rain gauge shall be located on site to monitor daily precipitation. The permittee shall also manage application rates by taking into consideration the forecast for rain events in the 48-hour period in the future.
4. No waste water shall be applied as spray irrigation (liquid) where there is snow present on the surface of the ground or when there is any evidence of frost or frozen ground within the upper 10 inches of the soil profile.
5. No traffic or equipment shall be allowed in the spray-irrigation field area except where installation occurs or where normal operations and maintenance are performed.
6. Prior to the commencement of spray irrigation for the season, the permittee shall notify the Department's compliance inspector that they have verified that soil conditions are appropriate (absence of frozen ground, soil conditions, moisture, etc.) for spray irrigation.
7. The permittee shall install the equivalent of one ground water level inspection well per spray field to verify that 10 inches of separation from the ground surface to the observed ground water level is present prior to spraying. Depths to ground water shall be recorded in accordance with the general format of *"Monthly Operations Log"* provided as **Attachment E** of this license or other format as approved by the Department.

H. VEGETATION MANAGEMENT

1. The permittee shall remove grasses and other vegetation, such as shrubs and trees, if necessary so as not to impair the operation of the spray-irrigation system, ensure uniform distribution of waste water over the desired application area and to optimize nutrient uptake and removal.

2. The vegetative buffer zones along the perimeter of the site shall be maintained to maximize vegetation and forest canopy density in order to minimize off-site drift of spray.

SPECIAL CONDITIONS

I. GROUND WATER MONITORING WELLS AND WATER QUALITY MONITORING PLAN DETAILS

1. The permittee shall maintain an approved ground water quality monitoring plan prepared by a professional qualified in water chemistry. The plan shall include historical current monitoring data for each monitoring point, represented in tabular and or graphical form.

2. All monitoring wells shall be equipped with a cap and lock to limit access and shall be maintained in a secured state at all times. The integrity of the monitoring wells shall also be verified annually in order to insure representative samples of ground water quality.

3. The Department reserves the right to require increasing the depth of and/or relocating any of the ground water monitoring wells if the well is perennially dry or is determined not to be representative of ground water conditions.

4. Ground water samples shall be obtained using low flow sampling techniques.

J. OPERATIONS AND MAINTENANCE (O&M) PLAN

This facility shall have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades, the permittee shall 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 shall 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 shall submit the updated O&M Plan to their Department inspector for review and comment.

SPECIAL CONDITIONS

K. 06-096 CMR 530(2)(D)(4) STATEMENT FOR REDUCED/WAIVED TOXICS TESTING

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

(a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;

(b) Changes in the operation of the treatment works that may increase the toxicity of the discharge; and

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

The Department reserves the right to reinstate annual (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 exceedences of ambient water quality criteria/thresholds.

L. MONITORING AND REPORTING

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

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

SPECIAL CONDITIONS

L. MONITORING AND REPORTING (cont'd)

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

M. REOPENING OF PERMIT FOR MODIFICATION

Upon evaluation of the tests results in the Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time and with notice to the permittee, modify this permit to: (1) include effluent 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. 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
WET and Chemical Specific Data Report Form
This form is for reporting laboratory data and facility information. Official compliance reviews will be done by DEP.

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

Licensed Flow (MGD) | **Acute dilution factor** | **Chronic dilution factor** | **Human health dilution factor** | **Criteria type: M(arine) or F(resh)**

Flow for Day (MGD)[1] | **Flow Avg. for Month (MGD)[2]**

Date Sample Collected | Date Sample Analyzed

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

Last Revision - April 25, 2012

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.

	WHOLE EFFLUENT TOXICITY		Effluent Limits, % Acute	Effluent Limits, % Chronic		Receiving Water or Ambient	Effluent Concentration (ug/L or as noted) WET Result, % Do not enter % sign	Reporting Limit Check	Possible Exceedence [7] Acute	Possible Exceedence [7] Chronic	
	Trout - Acute										
	Trout - Chronic										
	Water Flea - Acute										
	Water Flea - Chronic										
	WET CHEMISTRY										
	pH (S.U.) (9)					(8)					
	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[5]	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	5				(8)				
M	LEAD	3				(8)				
M	NICKEL	5				(8)				
M	SILVER	1				(8)				
M	ZINC	5				(8)				

Maine Department of Environmental Protection
WET and Chemical Specific Data Report Form
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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									

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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									

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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.

(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 B

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

Approved Analytical Methods: EPA 365.1 (Rev. 2.0), 365.3, 365.4; SM 4500-P B.5, 4500-P E, 4500-P F; ASTM D515-88(A), D515-88(B); USGS 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 C

Maine Department of Environmental Protection

Effluent Mercury Test Report

Name of Facility: _____ Federal Permit # ME _____

Pipe # _____

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

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
WHOLE EFFLUENT TOXICITY REPORT
FRESH WATERS

Facility Name _____ MEPDES Permit # _____

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 _____ mm/dd/yy Date Tested _____ mm/dd/yy

Chlorinated? _____ Dechlorinated? _____

Results **% effluent**

	water flea	trout
A-NOEL		
C-NOEL		

Effluent Limitations

A-NOEL	
C-NOEL	

Data summary

	water flea			trout		
	% 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

Reference toxicant

	water flea		trout	
	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 E

Attachment E

Monthly Operations Log

Tate & Lyle (WDL #W000940) **(Month/Year)** _____

Spray Field #_____ **Weekly Application Rate:** _____gallons/week

A	B	C	D	E	F	G
Date	Precipitation Previous 24 hours (inches)	Air Temp (°F)	Weather	Wind- Direction Speed (mph)	Depth To GW in Observation well (inches)	Total Gallons Pumped (gallons)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

Signature of Responsible Official: _____ Date _____

ATTACHMENT F

Attachment F

Spray Application Report by Week

Tate & Lyle (WDL #W000940) **(Month/Year)** _____

Spray Field #	Weekly Limit (Gallons/Week)	Spray Application Rates (Gallons/Week)					Monthly Total
		Week 1	Week 2	Week 3	Week 4	Week 5	

Signature of Responsible Official: _____ Date _____

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

AND

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

DATE: **August 9, 2013**

MEPDES PERMIT NUMBER: **ME0002216**
WASTE DISCHARGE LICENSE: **W000940-5N-I-R**

NAME AND ADDRESS OF APPLICANT:

TATE & LYLE INGREDIENTS AMERICAS LLC
2200 East Eldorado Street
Decatur, Illinois 62525

COUNTY: **Aroostook**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

TATE & LYLE INGREDIENTS AMERICAS LLC
48 Morningstar Road
Houlton, Maine 04730

RECEIVING WATER / CLASSIFICATION: **Meduxnekeag River / Class B**
Groundwater / Class GW-A

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

Mr. Richard Dickinson
Director, Environmental Services
Tel: (217) 421-2152
e-mail: richard.dickinson@tateandlyle.com

ADDITIONAL FACILITY CONTACTS:

Mr. Lance Horn
Plant Manager
(207) 532-9523
e-mail: lance.horn@tateandlyle.com

Mr. Brent Cassidy
Treatment Plant Operator
(207) 521-1014
e-mail: brent.cassidy@tateandlyle.com

1. APPLICATION SUMMARY

a. Application: Tate & Lyle Ingredients Americas LLC (Tate & Lyle/permittee hereinafter) has submitted a timely and complete application to the Department for the renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME002216/ Maine Waste Discharge License (WDL) #W000940-5N-E-R (permit hereinafter) which was issued by the Department on June 17, 2008, for a five-year term. The 6/17/08 permit authorized the discharge of: (1) 0.04 million gallons per day (MGD) of boiler blowdown and process waste waters to the Meduxnekeag River, Class B, via Outfall #001; (2) 0.05 MGD of non-contact cooling waters to the Meduxnekeag River, Class B, via Outfall #002; and (3) non-contact cooling waters, boiler blowdown and process waste waters to ground water, Class GW-A, via a surface wastewater disposal system (spray irrigation) at a weekly average rate of up to 40,728 gallons per acre per week and a daily maximum rate of up to 20,362 gallons per acre per day. All discharges are located in Houlton, Maine. See **Attachment A** of this Fact Sheet for a location map. Tate & Lyle has applied for authorization to spray irrigate non-contact cooling waters and boiler blowdown/process waste waters via the spray irrigation system.

On December 29, 2008, the Department issued a minor revision to the 6/17/08 permit that changed the numeric limits for sodium and sulfate to "report" only. Another minor revision to the 6/17/08 permit was issued on December 8, 2009, that served to further clarify the applicability of certain effluent limitations, monitoring requirements and discharge restrictions in Special Condition A of said permit. One additional minor revision to the 6/17/08 permit was issued on February 6, 2012, that reduced the monitoring frequency for mercury from 4/Year to 1/Year based on a revised statute found at Maine law 38 M.R.S.A., §420, sub-¶F.

b. Source Description: The facility utilizes approximately 94,000 GPD of municipal water from the Houlton Water Company for use in its manufacturing processes. The facility receives tapioca, potato, and corn starches, which it chemically modifies, dewaters, and redries. Wastewater is generated during Tate & Lyle's manufacturing process through starch washing, clean-outs at the end of batch processing, and through general process losses through mechanical seal leakage.

Sanitary wastewater is disposed of through a subsurface disposal system designed and approved in accordance with the Maine Department of Health and Human Services' rules.

c. Wastewater Treatment: Based on a water balance diagram provided by Tate & Lyle and included as **Attachment B** of this Fact Sheet, the facility generates approximately 37,500 GPD of process waste waters and blowdown. Treatment units for this waste stream consist of a 40,000-gallon capacity primary clarifier, a sludge dewatering centrifuge, a 75,000-gallon capacity #1 equalization/pre-aeration tank, a 218,000-gallon capacity #2 equalization/pre-aeration tank, a 350,000-gallon capacity diffused air activated sludge basin, a 38,000-gallon traveling bridge suction clarifier, a 560,000 gallons of sludge storage tank capacity and a new enhanced dissolved air flotation unit. Tate & Lyle has a new reed bed system consisting of three 5,500 square foot reed beds for sludge treatment.

1. APPLICATION SUMMARY (cont'd)

Final effluent is conveyed for discharge via Outfall #001A to the Meduxnekeag River. Outfall #001A is a 4-inch HDPE pipe that extends into the river approximately 10 feet. The pipe contains eight alternating ¾" diameter holes to disperse effluent with the receiving water. Discharges via Outfall #001A are prohibited if the river flow is less than 15 cfs at the Tate & Lyle outfall or if the dissolved oxygen (DO) concentration is less than 7 ppm at Cary's Mills Bridge or 7.3 ppm above the Houlton publicly owned wastewater treatment works (POTW) between June 1st and September 15th of each year. During these conditions, wastewater that would be discharged through Outfall #001A may be disposed of through spray irrigation (administrative Outfall #003A, SF-1) during the period of May 15 through November 15 provided all other terms and conditions established for spray irrigation are met. See **Attachment B** of this Fact Sheet for a Water Balance of the Waste Water Treatment for the facility.

Tate & Lyle also generates approximately 39,000 GPD of non-contact cooling water in its processes, which is discharged to the Meduxnekeag River via Outfall #002A. Outfall #002A is an 8-inch diameter pipe that terminates approximately 15 feet above the surface of the river (bank discharge). The non-contact cooling water receives no treatment, as it is uncontaminated except for heat. This permitting action authorizes the permittee to spray irrigate non-contact cooling waters to the spray irrigation field (the same spray irrigation fields as SF-1, disposal of non-contact cooling waters via spray irrigation has been assigned a separate identifier of SF-2 for data management purposes).

d. Spray Area Site Conditions: In December 1994, Certified Soil Scientist William K. Hersey performed a Medium High Intensity Soil Survey on the portion of gently sloping pastureland used for spray irrigation on the 100-acre farm site owned by Tate & Lyle. The soils on the irrigation site consist of well-drained, Caribou gravelly, sandy loam and moderately well-drained, Conant silt loam soils. Both are till derived and moderately permeable. The Caribou soil is deep, with a seasonal high water table of greater than 5 feet. The Lawrence Gough site consists of gently sloping pasture land containing well drained Caribou soils and moderately well drained Conant soils.

Based on a November 22, 2002, report by Wright-Pierce on 2002 monitoring well and soil sampling results, Tate & Lyle's past spray irrigation practices have resulted in creation of sodic soil conditions and a breakdown of soil structure. Further, Tate & Lyle's spray practices have caused sodium and sulfate ground water levels on the existing spray site to exceed action levels established in this permit.

e. Surface Wastewater Disposal System: Tate & Lyle utilizes a 1,200-foot retractable spray irrigation reel. The moveable reel allows wastewater application to be directed to areas of the field with optimal spray conditions. This equipment sprays effluent in a 180 degree arc on a 90-foot radius while retracting. The spray irrigation area is approximately 57 acres in size.

1. APPLICATION SUMMARY (cont'd)

f. Ground Water Monitoring Wells: Ground water monitoring has historically been accomplished via twelve (12) monitoring wells designated as follows: MW-1, MW-2A, MW-2B, MW-3A, MW-3B, MW-4, MW-5A, MW-5B, TW-1, TW-5, TW-6, and TW-8. A map showing the location of the monitoring wells, prepared by Hillier & Associates, Inc. and dated June 2002, is included as **Attachment C** of this Fact Sheet. This permitting action is reducing the number of monitoring wells from twelve wells to six (6) wells based on a Department review of the extensive monitoring data. The Department is making a best professional judgment that wells MW-1, MW-3A, MW-3B, MW-5B, TW-5 and TW-6 are strategically located such to determine if ground water quality standards/action levels are being attained.

2. PERMIT SUMMARY

a. Terms and conditions: This permitting action is carrying forward all the terms and conditions of the 6/17/13, 12/29/08, 12/8/09 and 2/6/12 permitting actions except this permit is:

1. Revising the minimum flow regime in which the facility is authorized to discharge during the non-summer months. More specifically, this permit limits the discharge to times when the receiving water is $\geq$15 cfs rather than authoring the discharges at 7Q10 (3.1 cfs).

2. Increasing the acute, chronic and harmonic mean dilution factors associated with the minimum receiving water flow of 15 cfs.

3. Establishing a new flow regime and corresponding effluent limitations associated with a minimum receiving water flow of 50 cfs.

4. Waiving surveillance level whole effluent toxicity (WET) and analytical chemistry test during the first three and fifth years of the term of the permit given the facility is now categorized as a Level III facility rather than a Level II facility pursuant to 06-096 CMR Chapter 530, *Surface Water Toxics Control Program.*

5. Reducing the number of ground water monitoring wells from 12 wells to 6 wells and reducing the monitoring frequency from 3/Year to 2/Year given the extensive history of ground water monitoring of the site.

b. History: This section provides a summary of recent, relevant licensing/permitting actions that have been completed for Tate & Lyle's Houlton facility.

September 19, 2000 – The U.S. Environmental Protection Agency (USEPA) issued National Pollutant Discharge Elimination System (NPDES) permit #ME0002216 for the Staley facility, superseding an earlier NPDES permit issued on August 12, 1996.

2. PERMIT SUMMARY (cont'd)

November 17, 2000 – Pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL #W000940-5N-D-R by establishing interim monthly average and daily maximum effluent concentration limits of 11.8 parts per trillion (ppt) and 17.6 ppt, respectively, and a minimum monitoring frequency requirement of two (2) tests per year for mercury. It is noted the limitations have been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit.

January 12, 2001 – The Department received authorization from the USEPA to administer the NPDES permit program in Maine, excluding areas of special interest to Maine Indian Tribes. From that point forward, the program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) program, and MEPDES permit #ME0002216 has been utilized as the primary reference number for Tate & Lyle's Houlton facility.

June 26, 2003 – The Department issued combined MEPDES permit #ME0002216 / WDL #W000940-5N-D-R to A.E. Staley Manufacturing Company for discharges of process wastewater and non-contact cooling waters to both the Meduxnekeag River and to ground water via spray irrigation. The 6/29/03 permit superseded WDL #W000940-5N-D-R issued on November 17, 1995, and WDL #W000940-44-A-N and #W003230-44-A-N, both of which expired on August 1, 1985.

April 10, 2006 – The Department amended the 6/29/03 permit to incorporate testing requirements of 06-096 CMR 530.

June 17, 2008 – The Department issued combination MEPDS permit #ME0002216/Maine WDL #W000940-5N-E-R to Tate & Lyle Ingredients Americas, Inc. for a five-year term.

December 29, 2008 - The Department issued a minor revision to the 6/17/08 permit that changed the numeric limits for sodium and sulfate to "report" only.

December 8, 2009 – The Department issued a minor revision to the 6/17/08 permit that served to further clarify the applicability of certain effluent limitations, monitoring requirements and discharge restrictions in Special Condition A of said permit.

February 6, 2012 – The Department issued a minor revision of the 6/17/08 permit that reduced the monitoring frequency for mercury from 4/Year to 1/Year based on a revised statute found at Maine law 38 M.R.S.A., §420, sub-¶F.

March 19, 2013 – Tate & Lyle submitted a timely and complete application to the Department to renew the MEPDES permit/WDL last issued by the Department on 6/17/08 for a five-year term.

3. CONDITIONS OF PERMITS

Conditions of licenses, 38 M.R.S.A. § 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., § 420 and 06-096 CMR 530 require the regulation of toxic substances not to exceed levels set forth in *Surface Water Quality Criteria for Toxic Pollutants*, 06-096 CMR 584 (effective October 9, 2005), and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Classification of major river basins, 38 M.R.S.A. § 467(15)(E)(1)(a) classifies the Meduxnekeag River, main stem, as Class B waters. *Standards for classification of fresh surface waters*, 38 M.R.S.A. § 465(3) describes the standards for Class B waters 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.*
>
> *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.*

Classification of ground water, 38 M.R.S.A. § 470 states *"All ground water shall be classified as not less than Class GW-A, except as otherwise provided in this section." Standards of classification of ground* water, 38 M.R.S.A. § 465-C(1) contains the standards for the classification of ground waters. *"Class GW-A shall be the highest classification and shall be of such quality that it can be used for public drinking water supplies. These waters shall be free of radioactive matter or any matter that imparts color, turbidity, taste or odor which would impair usages of these waters, other than that occurring from natural phenomena."*

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2010 Integrated Water Quality Monitoring and Assessment Report, (Report) prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, lists a 243.63-mile reach of the Meduxnekeag River main stem and its tributaries *"Category 2: Rivers and Streams Attaining Some Designated Uses - Insufficient Information for Other Uses"* and of that 243.63 miles, it lists an eleven (11)-mile reach as *"Category 4-A: Rivers and Streams with Impaired Use, TMDL Completed."* On March 8, 2001, the USEPA approved a Total Maximum Daily Load (TMDL) analysis for the Meduxnekeag River. The TMDL classifies a 6-mile stretch of river below Houlton as not attaining Class B standards for dissolved oxygen. The TMDL states,

"The survey data as well as model runs indicate that the Meduxnekeag River is not attaining standards for dissolved oxygen (DO) concentration below the Houlton outfall. Occasional, marginal non-attainment of DO standards was also measured above the Houlton outfall. The major factor in this non-attainment is the diurnal DO effect from the respiration of attached plant growth as a result of phosphorous enrichment." The executive summary of the TMDL report recommends maintenance of the *"... current A.E. Staley permit limits and conditions, although this discharge is located above the listed river segment."* This permitting action is carrying forward the phosphorous, BOD_5, TSS and discharge restrictions consistent with the recommendations of the TMDL.

The Report lists all of Maine's fresh waters as, *"Category 4-A: Rivers and Streams with Impaired Use, TMDL Completed, Waters Impaired by Atmospheric Deposition of Mercury. Regional or National TMDL May Be Required."* Impairment in this context refers to a statewide fish consumption advisory due to elevated levels of mercury in some fish tissues. The report states, "*Impairment caused by atmospheric deposition of mercury; a regional scale TMDL has been approved. 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 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 Maine law 38 M.R.S.A. § 420(1-B)(B), *"a facility is not in violation of the ambient criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413 subsection 11."* The Department has established interim monthly average and daily maximum mercury concentration limits and reporting requirements for this facility pursuant to 06-096 CMR 519. See Section 6(k) of this Fact Sheet for more information on mercury limits and test results to date.

Ground water monitoring data from Tate & Lyle's spray irrigation site collected in May, August, and December 2002 indicated sodium levels in ground water of up to 1,346 ppm, or 11.2 times the 120 ppm sodium action level of 120 mg/L established in Special Condition A of the permit. Ground water monitoring in several areas of the site showed a continuation of readings above action level and a further increase in sodium levels during 2002. During the same sampling events, results indicated sulfate levels in groundwater of up to 2,716 ppm, or 10.8 times the 250 ppm

5. RECEIVING WATER QUALITY CONDITIONS (cont'd)

sulfate action level established in Special Condition A of the permit. Ground water monitoring in several areas of the site showed a continuation of readings above action level and a further increase in sulfate levels during 2002.

During the period of August 2003 through August 2007, ground water levels of sodium exceeded the action level threshold value of 120 mg/L in one or more samples in all monitoring wells except MW1, MW4, and MW5A. Ground water levels of sulfate have exceeded the action level threshold value of 250 mg/L in all monitoring wells except MW4 and MW5A. Ground water levels of nitrate-nitrogen have exceeded the numeric limit of 10 mg/L in monitoring wells MW1, MW2B, and MW3A. Monitoring during the aforementioned period does not indicate a definitive upward or downward trend in ground water concentration of these pollutants of concern.

During the period August 2008 – August 2012, ground water levels of sodium exceeded the action level threshold value of 120 mg/L in MW-3A and MW-3B only the easterly property boundary of the sprayfield. As a result, this permitting action is carrying forward a prohibition on spray irrigation of boiler blowdown and process waste waters when the action levels specified above for sodium are exceeded and is requiring specific written Department approval to commence spray irrigation of boiler blowdown and process wastewaters each spray season. Additionally, this permitting action is authorizing the permittee's proposal to spray irrigate using non-contact cooling waters in an effort to reduce ground water salt concentrations. The permittee asserts that spray irrigating unpolluted non-contact cooling water (obtained from the Town of Houlton's public water supply) on the spray irrigation field will assist in flushing accumulated salts (sodium and sulfate specifically) out of the soil medium and into the underlying ground water. Ground water below the spray irrigation field discharges to the near-by Medunexkeag River and is not anticipated to have an adverse impact on surface water quality. Spray irrigating non-contact cooling water is also anticipated to allow the permittee to maintain a productive crop cover on the field, further assisting in the uptake of nutrients from the soil.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES

a. Applicability of Effluent Guideline Limitations (EGLs): Tate & Lyle processes tapioca, potato, and corn starches at its Houlton facility to create a variety of processed products. The Department is making a best professional judgment determination to consider the best practicable treatment (BPT)-based effluent guidelines for the *Canned and Preserved Fruits and Vegetables Processing Point Source Category, Dehydrated Potato Products Subcategory* established at 40 CFR Part 407 Subpart E for this facility. 40 CFR Part 407.52 establishes BPT-based effluent guidelines for biochemical oxygen demand (BOD_5), total suspended solids (TSS) and pH.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

OUTFALL #001 – Process wastewater and boiler blowdown

b. Flow: The previous permitting action established a monthly average discharge flow limitation of 0.04 MGD for Outfall #001. The flow was considered to be representative of the design flow for the facility. Discharges from Outfall #001A during the period of June 1 through September 15 were limited to times when river flow was greater than 15 cfs at the Tate & Lyle outfall and when the ambient dissolved oxygen concentration was greater than 7 ppm at Cary's Mills Bridge and 7.3 ppm above the Houlton POTW.

A review of the monthly average flow data as reported on the monthly Discharge Monitoring Reports (DMRs) submitted to the Department for the period January 2010 – March 2013 indicates the permittee has reported values as follows

Flow (DMRs = 39)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	0.04	0.02 – 0.04	0.032
Daily maximum	Report	0.03 – 0.07	0.050

Outfall #001 - Process wastewater and boiler blowdown

Due to an increase in product lines being manufactured at the facility, the permittee has requested an increase in the monthly average flow from 0.04 MGD to 0.06 MGD. The permittee's request is acceptable to the Department but will be expressed in gallons per day (gpd) rather than million gallons per day (MGD). It is noted the increase in flow is not subject to anti-backsliding or anti-degradation review given the quantity of pollutants is the same as the previous permitting action.

In its application for permit renewal, the permittee has requested the Department revise the discharge regime established in the previous permit. The previous permit establish discharge regimes as follows:

- Between June 1 – September 15 of each year, the permittee was authorized to discharge up to a monthly average flow of 0.04 MGD *provided* the Meduxnekeag River was flowing at ≥15 cfs and the dissolved oxygen (DO) of the river at Cary's Mills Bridge was ≥7 mg/L and the DO at the Houlton Water Company's waste water treatment facility was ≥7.3 mg/L. The restriction on the ≥15 cfs was due to non-attainment of dissolved oxygen standards at low flows and high water temperatures in the river. It is noted the Department has determined the 1Q10 and 7Q10 of the Meduxnekeag River at the point of discharge is 2.6 cfs and 3.1 cfs respectively.

- Between September 16 and May 31 the permittee was authorized to discharge up to a monthly average flow of 0.04 MGD regardless of the flow in the Meduxnekeag River as dissolved oxygen standards would be met at full discharge limits and 1Q10 and 7Q10 low flows in the river given significantly lower ambient water temperatures.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

In its 2013 application for permit renewal, the permittee has requested the Department consider establishing a new set of discharge regimes based on two fixed receiving water thresholds as follows:

When the Meduxnekeag River is ≥15 cfs (year-round), the permittee would be limited to a monthly average flow of 60,000 gpd (0.06 MGD) and the same seasonal mass limits for biochemical oxygen demand (BOD), total suspended solids (TSS) and total phosphorus (TP) established in the previous permitting action *provided* the dissolved oxygen (DO) of the river at Cary's Mills Bridge was ≥7 mg/L and the DO at the Houlton Water Company's waste water treatment facility was ≥7.3 mg/L.

When the Meduxnekeag River is >50 cfs the permittee would be limited to a monthly average flow limit of 120,000 gpd (0.12 MGD) and seasonal limits for BOD, TSS and TP that are twice as great as the limits established when the Meduxnekeag River is ≥15 cfs. The DO minimums cited above are no longer relevant at flows of ≥50 cfs.

The proposal by the permittee is acceptable to the Department as the Department has modeled the two discharge regimes and determined water quality standards will be met under both discharge regimes. See Section 8, Antibacksliding/Antidegradation of this Fact Sheet for more discussion on the impact of the proposed discharges regimes.

c. Dilution Factors: The 6/17/08 permit established a discharge prohibition for Outfall #001A during the period of June 1 through September 15 when river flow is less than 15 cfs. The permittee has installed a flow monitoring gauge in the river to provide an accurate means of measuring stream flow. 06-096 CMR 530(4)(A) states, in pertinent part,

> *With a non-continuous discharge (such as a lagoon which can be impounded or a continuous discharge prohibited from discharging under specified conditions), the dilution factors can be based on a guaranteed minimum stream flow or tidal stage below which a discharge will not occur. The discharger must submit a request for a license modification that reflects a different minimum stream flow. If the Department approves an alternate stream flow, the license must include a monitoring and reporting requirement, and must include an accurate means of measuring stream flow that is calibrated annually.*

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

Dilution factors associated with the seasonal discharge flow regimes of 0.04 MGD via Outfall #001A in the 6/17/08 permit were derived in accordance with 06-096 CMR 530(4)(A) as follows:

Summer Season (June 1 - September 15)

Acute /Chronic/Harmonic Mean: = 15 cfs $\Rightarrow \frac{(15 \text{ cfs})(0.6464) + 0.04 \text{ MGD}}{0.04 \text{ MGD}} = 243.4{:}1$

Winter Season (September 16 – May 31)

Acute: 1Q10 = 2.6 cfs $\Rightarrow \frac{(2.6 \text{ cfs})(0.6464) + 0.04 \text{ MGD}}{0.04 \text{ MGD}} = 43.0{:}1$

Chronic: 7Q10 = 3.1 cfs $\Rightarrow \frac{(3.1 \text{ cfs})(0.6464) + 0.04 \text{ MGD}}{0.04 \text{ MGD}} = 51.0{:}1$

Harmonic Mean[1] = 9.2 cfs $\Rightarrow \frac{(9.2 \text{ cfs})(0.6464) + 0.04 \text{ MGD}}{0.04 \text{ MGD}} = 149.7{:}1$

The Department's Division of Environmental Assessment (DEA) has determined that mixing of the effluent with the receiving water is rapid and complete and recommends that acute evaluations be based on the full 1Q10 value rather than the default stream design flow of ¼ of the 1Q10 in accordance with 06-096 CMR 530(4)(B)(1).

With the new discharge flow regimes, 60,000 gpd when the receiving water is ≥15 cfs (year round) and 120,000 gpd when the receiving water is ≥50 cfs, the dilution factors are as follows:

0.060 MGD and 15 cfs

Acute and Chronic: = 15 cfs $\Rightarrow \frac{(15 \text{ cfs})(0.6464) + 0.06 \text{ MGD}}{0.06 \text{ MGD}} = 163{:}1$

Harmonic mean: = 45 cfs $\Rightarrow \frac{(45 \text{ cfs})(0.6464) + 0.06 \text{ MGD}}{0.06 \text{ MGD}} = 486{:}1$

[1] The harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by three (3). This multiplying factor is based on guidelines for estimation of human health dilution presented in the U.S. EPA publication, "*Technical Support Document for Water Quality-Based Toxics Control*" (Office of Water; EPA/505/2-90-001, page 88), and represents an estimation of harmonic mean flow on which human health dilutions are based in a riverine 7Q10 flow situation.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

0.120 MGD and 50 cfs

Acute and Chronic: = 50 cfs $\Rightarrow \frac{(50 \text{ cfs})(0.6464) + 0.12 \text{ MGD}}{0.12 \text{ MGD}} = 270{:}1$

Harmonic mean: = 150 cfs $\Rightarrow \frac{(150 \text{ cfs})(0.6464) + 0.12 \text{ MGD}}{0.12 \text{ MGD}} = 809{:}1$

d. Biochemical Oxygen Demand (BOD_5): The previous permitting action established seasonal effluent limitations for BOD_5 for Outfall #001A as follows:

BOD_5	Monthly Average (lbs./day)	Daily Maximum (lbs./day)	Monthly Average (mg/L)	Daily Maximum (mg/L)
Summer Season June 1 – Sept 30	54 lbs./day	67 lbs./day	243 mg/L	300 mg/L
Winter Season October 1 – May 31	75 lbs./day	133 lbs./day	338 mg/L	599 mg/L

The winter season mass limits had been carried forward in Department Orders based on the 1990 NPDES permit and are technology-based limits that were developed through the facility's past demonstrated performance (best professional judgment of best practicable treatment). The summer season mass limits are water quality-based and were developed based on river modeling conducted by the Department to maintain compliance with Class B DO standards. All four mass limitations are being carried forward in this permitting action.

40 CFR Part 407.52 establishes monthly average and daily maximum BPT-based effluent guideline limitations for BOD_5 of 1.20 pounds per 1,000 pounds of final product and 2.40 pounds per 1,000 pounds of final product, respectively. A historical chronology of the derivation of the monthly average and daily maximum technology based limits (dating back to 1976 can be found in a June 23, 2000 Fact Sheet from a NPDES prepared by the USEPA.

Under the discharge regime of the Meduxnekeag River being at $\geq$15 cfs, the Department has determined that the winter season monthly average and daily maximum effluent limits for BOD_5 established in the previous permitting action are more stringent than technology-based limits calculated using the effluent guidelines at 40 CFR Part 407.52 and the facility's long-term average production rate. The Department's DEA recommends carrying forward the summer season BOD_5 limits established in the previous permitting action based on continued water quality concerns in the receiving water. Therefore, this permitting action is carrying forward both the winter season and summer season concentration and mass limits for BOD_5. It is noted that the concentration limits were derived by back-calculating from the mass limits and applying a 1.5X multiplier to account for production-based effluent variability.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

Summer (June 1 – September 30)

Monthly Average $\frac{54 \text{ lbs./day}}{(0.04 \text{ MGD})(8.34 \text{ lbs./gallon})} \times 1.5 = 243 \text{ mg/L}$

Daily Maximum $\frac{67 \text{ lbs./day}}{(0.04 \text{ MGD})(8.34 \text{ lbs./gallon})} \times 1.5 = 300 \text{ mg/L}$

Non summer (October 1 – May 30

Monthly Average $\frac{75 \text{ lbs./day}}{(0.04 \text{ MGD})(8.34 \text{ lbs./gallon})} \times 1.5 = 338 \text{ mg/L}$

Daily Maximum $\frac{133 \text{ lbs./day}}{(0.04 \text{ MGD})(8.34 \text{ lbs./gallon})} \times 1.5 = 599 \text{ mg/L}$

A summary of the effluent BOD_5 data as reported on the DMRs submitted to the Department for the period July 2008 through April 2013 is as follows:

Summer (June 1 – September 30)

BOD mass (DMRs = 18)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	54	1 – 15	3.9
Daily Maximum	67	2 – 35	9.4

BOD concentration (DMRs = 18)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	243	4.7 – 55	15
Daily Maximum	300	2.4 – 123	35

Non-summer (October 1 – May 31)

BOD mass (DMRs = 42)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	75	3 – 79	21
Daily Maximum	133	2 – 118	36

BOD concentration (DMRs = 42)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	338	6 – 343	88
Daily Maximum	599	11 – 439	147

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

Under the discharge regime of the Meduxnekeag River being at ≥50 cfs, the Department has determined that maintain all four of the seasonal technology based monthly average and daily maximum concentration limits is appropriate resulting in BPT being applied to the discharge under both discharge regimes. As for mass limits, with the tripling of the monthly average flow from 40,000 gpd to 120,000 gpd, and maintaining the concentration limits, the mass limits would triple but the permittee is proposing to limit the mass of BOD to only twice that of the >15 cfs discharge regime and can be calculated as follows:

Summer (June 1 – September 30)

Monthly average (54 lbs/day)(2) = 108 lbs/day

Daily maximum (67 lbs/day)(2) = 134 lbs/day

Non-summer (October 1 – May 31)

Monthly average (75 lbs/day)(2) = 150 lbs/day

Daily maximum (133 lbs/day)(2) = 266 lbs/day

The previous permitting action established a minimum monitoring frequency requirement of twice per week for BOD_5 based on Department best professional judgment. On April 19, 1996, the USEPA issued a guidance document entitled, "*Interim Guidance for Performance Based Reductions of NPDES Permit Monitoring Frequencies*" (USEPA 1996) as the basis for determining reduced monitoring frequencies. The guidance document was issued to reduce unnecessary reporting while at the same time maintaining a high level of environmental protection for facilities that have a good compliance record and pollutant discharges at levels below permit requirements. Monitoring requirements are not considered effluent limitations under section 402(o) of the Clean Water Act and therefore, anti-backsliding prohibitions would not be triggered by reductions in monitoring frequencies

The EPA Guidance indicates "*...the basic premise underlying a performance-based reduction approach is that maintaining a low average discharge relative to the permit limits results in a low probability of the occurrence of a violation for a wide range of sampling frequencies.*" The monitoring frequency reductions in EPA's guidance were designed to maintain approximately the same level of reported violations as that experienced with the existing baseline sampling frequency in the permit. To establish baseline performance the long term average (LTA) discharge rate for each parameter is calculated using the most recent two-year data set of monthly average effluent data representative of current operating conditions. The LTA/permit limit ratio is calculated and then compared to the matrix in Table I of EPA's guidance to determine the potential monitoring frequency reduction. It is noted Table I of EPA's guidance

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

was derived from a probability table that used an 80% effluent variability or coefficient of variation (cv). The permitting authority can take into consideration further reductions in the monitoring frequencies if the actual cv for the facility is significantly lower than the default 80% utilized by the EPA in Table I.

In addition to the parameter-by-parameter performance history via the statistical evaluation cited above, the EPA recommends the permitting authority take into consideration the facility enforcement history and the parameter-by-parameter compliance history and factors specific to the State or facility. The Department has adopted a policy that reductions will only be considered for technology based limitations and reductions will be limited to no more than one half of the current monitoring frequency.

Though EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, however, the Department is considering 60 months of data (July 2008 – April 2013). A review of the monitoring data for the technology based non-summer BOD (summer limits are water quality based) indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as follows:

BOD

Non-summer (October 1 – May 31)
Long term average = 21 lbs/day
Monthly average limit = 75 lbs/day
Current monitoring frequency = 2/Week

Ratio = $\frac{21 \text{ lbs/day}}{75 \text{ lbs/day}}$ = 28%

Summer (June 1 – September 30)
Long term average = 3.9 lbs/day
Monthly average limit = 54 lbs/day
Current monitoring frequency = 2/Week

Ratio = $\frac{3.9 \text{ lbs/day}}{54 \text{ lbs/day}}$ = 7.2%

According to Table I of the EPA Guidance, a 2/Week monitoring requirement can be reduced to 2/Month. The Department is making a best professional judgment that a monitoring frequency of 2/Month is not sufficient to determine on-going compliance at the facility. The Department recently adopted a policy to not reduce monitoring frequencies to more than 50% of their current monitoring frequency. Therefore, the monitoring frequency for BOD has been reduced to 1/Week in this permitting action.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

e. Total Suspended Solids (TSS): 40 CFR Part 407.52 establishes monthly average and daily maximum BPT-based effluent guideline limitations for TSS of 1.40 pounds per 1,000 pounds of final product and 2.80 pounds per 1,000 pounds of final product, respectively. The previous permitting action established (year-round) effluent limitations for TSS for Outfall #001A as follows:

TSS	Monthly Average (lbs./day)	Daily Maximum (lbs./day)	Monthly Average (mg/L)	Daily Maximum (mg/L)
	63 lbs./day	126 lbs./day	284 mg/L	567 mg/L

The TSS limits have been carried forward in Department Orders from the 1990 NPDES permit and are technology-based limits that were developed through the facility's past demonstrated performance (best professional judgment of best practicable treatment).

The Department has determined that the effluent limits for TSS established in the previous permitting action are more stringent than technology-based limits calculated using the effluent guidelines at 40 CFR Part 407.52 and the facility's long-term average production rate. The Department's DEA has not recommended water quality-based limits for TSS. Therefore, this permitting action is carrying forward the concentration and mass limits for TSS. It is noted the concentration limits were derived by back-calculating from the mass limits and applying a 1.5X multiplier to account for production-based effluent variability.

Example: $\frac{63 \text{ lbs./day}}{(0.04 \text{ MGD})(8.34 \text{ lbs./gallon})} \times 1.5 = 284 \text{ mg/L}$

A summary of the effluent TSS data as reported on the DMRs submitted to the Department for the period January 2008 through March 2013 is as follows:

TSS mass (DMRs = 63)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	63	5.2 - 57	22
Daily Maximum	126	8.5 - 111	42

TSS concentration (DMRs = 63)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	284	27 – 279	89
Daily Maximum	567	41 - 458	165

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

The previous permitting action established a minimum monitoring frequency requirement of twice per week for TSS based on Department best professional judgment. Though EPA's 1996 Guidance recommends evaluation of the most current two-years of effluent data for a parameter, however, the Department is considering 63 months of data (January 2008 – April 2013). A review of the monitoring data for the year-round technology based limits for TSS indicates the ratios (expressed in percent) of the long term effluent average to the monthly average limits can be calculated as follows:

TSS

Long term average = 22 lbs/day
Monthly average limit = 63 lbs/day
Current monitoring frequency = 2/Week

$$\text{Ratio} = \frac{22 \text{ lbs/day}}{63 \text{ lbs/day}} = 35\%$$

According to Table I of the EPA Guidance, a 2/Week monitoring requirement can be reduced to 2/Month. The Department is making a best professional judgment that a monitoring frequency of 2/Month is not sufficient to determine on-going compliance at the facility. The Department recently adopted a policy to not reduce monitoring frequencies to more than 50% of their current monitoring frequency. Therefore, the monitoring frequency for TSS has been reduced to 1/Week in this permitting action.

As with BOD, under the discharge regime of the Meduxnekeag River being at $\geq$50 cfs, the Department has determined that maintaining technology based monthly average and daily maximum concentration limits is appropriate resulting in BPT is being applied to the discharge under both discharge regimes. As for mass limits, with the tripling of the monthly average flow from 40,000 gpd to 120,000 gpd, and maintaining the concentration limits, the mass limits would triple but the permittee is proposing to limit the mass of TSS to only twice that of the >15 cfs discharge regime. Limits can be calculated as follows:

Monthly average (63 lbs/day)(2) = 126 lbs/day

Daily maximum (126 lbs/day)(2 mg/L) = 252 lbs/day

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

f. Total Phosphorous (total-P): The previous permitting action established, and this permitting action is carrying forward, seasonal (June 1 – September 15) water quality-based monthly average concentration and mass limits of 0.5 mg/L and 0.17 lbs./day, respectively, and daily maximum reporting requirements for total-P. These limitations are based on recommendations by the Department's Division of Environmental Assessment and the September 2000 Meduxnekeag River TMDL. Discharges via Outfall #001A that are in compliance with the total-P and other effluent limitations established in this permitting action will not cause or contribute to non-attainment of the dissolved oxygen criteria for Class B waters.

The State of Maine has not established AWQC for phosphorus as of date of this permitting action. However based on historic water quality assessments conducted by the Department, an ambient water quality threshold of 35 ug/L has been utilized in permitting actions to limit the discharge of phosphorus. In addition, sampling receiving waters for background concentrations of total phosphorus has yielded average results of 12 ug/L. Given a permitted flow of 0.06 MGD, a discharge concentration of 0.5 mg/l (500 ug/L) a low flow of 15 cfs (9.7 MGD), a total phosphorus ambient water quality threshold of 35 ug/L and a background concentration of 12 ug/L, reasonable potential calculations are as follows:

$$35 \text{ ug/L} - 12 \text{ ug/L} = 23 \text{ ug/L} \Rightarrow \text{Remaining assimilative capacity}$$

$$\frac{(500 \text{ ug/L})(0.06 \text{ MGD}) + (12 \text{ ug/L})(9.7 \text{ MGD})}{9.74 \text{ MGD}} = X \text{ ug/L}$$

$$X = 15 \text{ ug/L}$$

$$15 \text{ ug/L} < 23 \text{ ug/L} \Rightarrow \text{No reasonable potential}$$

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

A summary of the effluent total-P data as reported on the DMRs submitted to the Department for the period June 2008 through September 2012 is as follows:

Total phosphorus mass (DMRs = 19)

Value	Limit (lbs/day)	Range (lbs/day)	Mean (lbs/day)
Monthly Average	0.17	0.03 – 0.17	0.088
Daily Maximum	Report	0.04 – 0.53	0.24

Total phosphorus concentration (DMRs = 19)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.5 mg/L	0.10 – 0.66	0.31
Daily Maximum	Report	0.12 – 1.8	0.72

This permitting action is carrying forward the minimum monitoring frequency requirement of twice per week (June – September) for total-P based on Department best professional judgment. As with BOD and TSS, under the discharge regime of the Meduxnekeag River being at $\geq$50 cfs, the Department has determined that maintaining technology based monthly average and daily maximum concentration limits is appropriate resulting in BPT is being applied to the discharge under both discharge regimes. As for mass limits, with the tripling of the monthly average flow from 40,000 gpd to 120,000 gpd, and maintaining the concentration limits, the mass limits would triple but the permittee is proposing to limit the mass of total phosphorus to only twice that of the >15 cfs discharge regime. Limits can be calculated as follows:

Monthly average (0.17 lbs/day)(2) = 0.34 lbs/day

g. River Flow: The previous permitting action prohibited discharges from Outfall #001A during the period from June 1 through September 15 if the Meduxnekeag River flow was less than 15 cubic feet per second (cfs). The Department's DEA has determined that discharges in compliance with the numeric limitations established in Special condition A of the permit for Outfall #001A would not cause or contribute to non-attainment of dissolved oxygen standards for the Class B river when river flows exceed 15 cfs. The permittee is required to report the monthly average value, along with a monthly maximum and minimum value on the DMR, expressed as cfs. River flow measurements are obtained from a river flow gauge the permittee installed in 2005 in the immediate area of Outfall #001A. The gauge shall be calibrated at least once annually and calibration records shall be retained for inspection for a period of at least three years.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

A summary of the river flow data as reported on the DMRs submitted to the Department for the period June 2006 through September 2012 is as follows:

River Flow(DMRs = 27)

Value	Limit (cfs)	Range (cfs)	Mean (cfs)
Daily Minimum	15	15 – 106	39
Monthly Average	Report	17 – 441	135
Daily Maximum	Report	18 – 3,510	572

In the 2013 application for permit renewal, the permittee has requested the Department establish a second tier of permit limits with a discharge threshold of ≥50 cfs in the Meduxnekeag River. As with the lower flow regime, the permittee is required to record the monthly average, daily minimum and daily maximum river flows.

h. Ambient Dissolved Oxygen Monitoring and Discharge Prohibition: The previous permitting action established, and this permitting action is carrying forward, a prohibition on discharges via Outfall #001A during the period of June 1 through September 15 if the Meduxnekeag River dissolved oxygen (DO) concentration is less than 7 parts per million (ppm) at a DO monitoring location described as the Cary's Mills Bridge upriver of the confluence of the main stem of the Meduxnekeag River and its South Branch or less than 7.3 ppm at a DO monitoring site located immediately upriver of the Houlton Water Company's waste water treatment facility (Houlton POTW) discharge. This provision was also included in the 2001 TMDL analysis. The permittee shall monitor (at the Cary's Mills Bridge site and Houlton POTW site) and record in-stream DO concentrations once per day during the period of June 1 through September 15 when Tate & Lyle discharges or intends to discharge via Outfall #001A. Dissolved oxygen shall be monitored within two hours of sunrise.

A summary of the data as reported on the DMRs submitted to the Department for the period June 2008 through September 2012 is as follows:

Dissolved oxygen Cary's Bridge (DMRs = 19)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	≥7.0	7.5 – 9.1	7.8

Dissolved oxygen Houlton WD (DMRs = 19)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	≥7.3	7.3 – 8.9	8.1

In the 2013 application for permit renewal, the permittee has requested the Department establish a second tier of permit limits with a discharge threshold of ≥50 cfs in the Meduxnekeag River. The numeric limitations have been replaced by a daily maximum "report" only requirement given the significant increase in the dilution factors associated a receiving water flow threshold of ≥50 cfs.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

i. pH: The previous permitting action established a pH range limitation of 6.0 – 9.0 standard units (SU) for Outfall #001A which is being carried forward in this permit and is considered best practicable treatment (BPT) and is consistent with the effluent guidelines established at 40 CFR Part 407.52. This permitting action is carrying forward the minimum monitoring frequency requirement of once per day.

j. Temperature: The previous permitting action established a year-round daily maximum effluent temperature limit of 90 degrees Fahrenheit (°F) for Outfall #001A to ensure that the discharge complied with the requirements of *Regulations Relating to Temperature*, 06-096 CMR 582 (last amended February 18, 1989). 06-096 CMR 582 states that no discharge of pollutants shall cause the ambient temperature of any freshwater body, as measured outside a mixing zone, to be raised more than 5 degrees Fahrenheit. The rule also limits a discharger 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 USEPA water quality criterion for the protection of brook trout and Atlantic salmon. The weekly average temperature of 66° F was derived to protect for 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 $\geq$66° F and <73° F. When the receiving water temperature is $\geq$73°F, compliance with the ΔT of 0.5° F is evaluated on a daily basis.

Classification of Maine waters, 38 M.R.S.A. § 464 (4)(D), states that the assimilative capacity of a receiving water shall be calculated utilizing a seven-day low event with a recurrence interval of ten years that is often referred to as the 7Q10. The Department has determined that the 7Q10 flow of the Meduxnekeag River is 3.11 cfs (2.0 MGD)

Three discharge scenarios are possible:

1) discharge via Outfall #001A only when river flow is $\geq$15 cfs;
2) discharge via Outfall #002 only at a 7Q10 flow of 3.11 cfs; and
3) discharge via Outfall #001A and #002A when river flow is $\geq$15 cfs.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

The assimilative capacity of the Meduxnekeag River (thermal load that would cause the stream to increase by 0.5°F) at the three discharge scenarios described are as follows:

Scenario #1 - Outfall #001A only when river flow is ≥15 cfs

$$(15 \text{ cfs})(0.6464)(0.5°F)(8.34 \text{ lbs./gallon})(10^6 \text{ gallons}) = 4.0 \times 10^7 \text{ BTU/day}$$

The maximum effluent temperature (X°F) that at the full permitted flow rate of 60,000 GPD for Outfall #001A will, by itself, comply with the weekly rolling average limit of 0.5°F (when the receiving water is ≥66°F and <73°F) and not exceed the assimilative capacity of the Meduxnekeag River (4.0×10^7 BTU/day) may be calculated as follows:

$$(60{,}000 \text{ GPD})(X°F - 66°F)(8.34 \text{ lbs/gal}) = 4.0 \times 10^7 \text{ BTU/day}$$

$$\frac{4.0 \times 10^7 \text{ BTU/day}}{(60{,}000 \text{ GPD})(8.34 \text{ lbs./gal})}$$

$$= 80°F$$

$$X = 66°F + 80°F$$

Maximum Effluent Temperature, X°F, = 146°F

When the receiving water is >73°F, the temperature difference of 0.5°F is a daily maximum limit and the maximum allowable effluent temperature for Outfall #001A is 73°F + 80°F = 153°F.

Scenario #2 - Outfall #002A at a 7Q10 flow of 3.11 cfs;

$$(3.11 \text{ cfs})(0.6464)(0.5°F)(8.34 \text{ lbs./gallon})(10^6 \text{ gallons}) = 8.4 \times 10^6 \text{ BTU/day}$$

$$\frac{8.4 \times 10^6 \text{ BTU/day}}{(50{,}000 \text{ GPD})(8.34 \text{ lbs./gal})}$$

$$= 20°F$$

$$X = 66°F + 20°F$$

Maximum Effluent Temperature, X°F, = 86°F

When the receiving water is >73°F, the temperature difference of 0.5°F is a daily maximum limit and the maximum allowable effluent temperature for Outfall #002A is 73°F + 20°F = 93°F.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

Scenario #3 – Both Outfall #001A and #002A when river flow is ≥15 cfs

(15 cfs)(0.6464)(0.5°F)(8.34 lbs./gallon)(10^6 gallons) = 4.0 x 10^7 BTU/day

The maximum effluent temperature (X°F) that at the combined full permitted flow rate of 110,000 gallons per day (60,000 GPD from Outfall #001A + 50,000 GPD from Outfall #002A) will, by itself, comply with the weekly rolling average limit of 0.5°F (when the receiving water is ≥66°F and <73°F) and not exceed the assimilative capacity of the Meduxnekeag River (4.0 x 10^7 BTU/day) may be calculated as follows:

$$\frac{4.0 \times 10^7 \text{ BTU/day}}{(110{,}000 \text{ GPD})(8.34 \text{ lbs./gal})}$$

$$= 44°F$$

$$X = 66°F + 44°F$$

Maximum Effluent Temperature, X°F, = 110°F

When the receiving water is >73°F, the temperature difference of 0.5°F is a daily maximum limit and the maximum allowable effluent temperature for both Outfall #001A and #002A is 73°F + 44°F = 117°F.

In consideration of the anticipated and actual effluent temperatures for Outfall #001A and #002A, the Department is making a best professional judgment determination to establish a year-round daily maximum effluent temperature limit of 90°F (32°C) for Outfall #001A and 86°F (30°C) for Outfall #002A. This action will ensure that under all discharge conditions, the discharge will not cause or contribute to violations of the temperature criteria established by 06-096 CMR 582.

This permitting action is establishing minimum monitoring frequency requirements once per day for temperature for both outfalls, which is consistent with the monitoring requirements established in other MEPDES permits regulating thermal discharges.

k. Mercury: Pursuant to Maine law, 38 M.R.S.A. §420 and Department rule, 06-096 CMR Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee on May 23, 2000, thereby administratively modifying WDL # W000940 by establishing interim monthly average and daily maximum effluent concentration limits of 16.5 parts per trillion (ppt) and 24.8 ppt, respectively, and a minimum monitoring frequency requirement of four tests per year for mercury.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

Maine law 38 M.R.S.A., §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 February 2007 through the present indicates the permittee has been in compliance with the interim limits for mercury as results have been reported as follows;

Mercury (n = 13)

Value	Limit (ng/L)	Range (ng/L)	Mean (ng/L)
Average, Maximum	16.5 / 24.8	1.0 – 11.0	4.7

Pursuant to Maine law 38, M.R.S.A. §420, sub-§1-B, ¶F, the Department issued a modification on February 6, 2013, by reducing the monitoring frequency for mercury from 4/Year to 1/Year given the permittee has maintained at least 5 years of mercury testing data. In fact, the permitte has been monitoring mercury at frequency of 4/Year since June 2000 or 11 years.

l. Whole Effluent Toxicity (WET), Priority Pollutant, and Analytical Chemistry 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.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

06-096 CMR 530(2)(A) specifies the dischargers subject to the rule as, *"all licensed dischargers of industrial process wastewater or domestic wastes discharging to surface waters of the State must meet the testing requirements of this section. Dischargers of other types of wastewater are subject to this subsection when and if the Department determines that toxicity of effluents may have reasonable potential to cause or contribute to exceedences of narrative or numerical water quality criteria."* Tate & Lyle discharges industrial process waste waters to surface waters via Outfall #001A and is therefore subject to the testing requirements of the toxics rule. Note: discharges via Outfalls #002A (non-contact cooling water) and #003A (spray irrigation) are not subject to the rule. The remainder of this section addressed discharges via Outfall #001A only.

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

Level I – chronic dilution factor of <20:1.
Level II – chronic dilution factor of ≥20:1 but <100:1.
Level III – chronic dilution factor ≥100:1 but <500:1 or >500:1 and Q ≥1.0 MGD
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 routine screening and surveillance level testing requirements are as follows:

Screening level testing – During the period 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 if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

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

Surveillance level testing – Beginning upon permit issuance and lasting through 24 months prior to permit expiration (Years 1, 2 & 3 of the term of the permit) and commencing again 12 months prior to permit expiration (Year 5 of the term of the permit).

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 per year	None required	1 per year

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

A review of the data on file with the Department indicates that to date, the permittee has fulfilled the WET and chemical-specific testing requirements of the former 06-096 CMR Chapter 530. See **Attachment D** of this Fact Sheet for a summary of the WET test results and **Attachment E** of this Fact Sheet for a summary of the chemical-specific test dates.

Chapter 530 §(3)(E) states "*For effluent monitoring data and the variability of the pollutant in the effluent, the Department shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license.*

WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action."

Chapter 530 §3 states, "*In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations.*"

WET Evaluation

On May 21, 2013, the Department conducted a statistical evaluation on the most recent 60 months of WET tests results on file at the Department. The statistical evaluation indicates the discharge from the permittee's waste water treatment facility does not have any test results that exceed or have a reasonable potential to exceed the critical acute and chronic water quality threshold of 0.6% (mathematical inverse of the acute and chronic dilution factor of 163:1).

As for testing frequencies, Chapter 530 §(2)(D)(3)(c) states in part that for Level II facilities "*...may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence...*"Based on the results of the 5/21/13 statistical evaluation, the permittee qualifies for the waiver for both the brook trout and the water flea. As a result, this permitting action is not establishing surveillance level WET testing.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

Chapter 530 §(2)(D) states:

(4) All dischargers having waived or reduced testing must file statements with the Department on or before December 31 of each year describing the following.

(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 Condition K, *06-096 CMR 530(2)(D)(4) Statement For Reduced/Waived Toxics Testing* of this permitting action requires the permittee to file an annual certification with the Department.

During the period 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 if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

Level	WET Testing
III	1/Year

Chapter 530 §3 states, "*In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations.*"

Chapter 530 §4(C), states "*The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions." The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations.*

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

Chemical Specific Evaluation

The Department has very limited information on the background levels of metals in the water column of Meduxnekeag River. Therefore, a default background concentration of 10% of the applicable water quality criteria is being used in the calculations of this permitting action.

Chapter 530 4(E), states "*In allocating assimilative capacity for toxic pollutants, the Department shall hold a portion of the total capacity in an unallocated reserve to allow for new or changed discharges and non-point source contributions. The unallocated reserve must be reviewed and restored as necessary at intervals of not more than five years. The water quality reserve must be not less than 15% of the total assimilative quantity*". Therefore, the Department is reserving 15% of the applicable water quality criteria in the calculations of this permitting action.

It is noted, the statistical evaluation is utilizing an acute hardness of 74 mg/L and a chronic hardness of 87 ug/L. These site specific values were derived by the HWC in accordance with the Department's Total Hardness Protocol adopted on March 5, 2001. For a more detailed explanation on the derivation of the site specific hardness values see a document entitled, Houlton Water Company, Houlton, Maine, Application to Maine Environmental Protection For Site Specific Limits Hardness Dependent Metals, April 2002 prepared by the HWC.

Chapter 530 §(3)(E) states "... *that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action.*"

As with WET test results, on May 21, 2013, the Department conducted a statistical evaluation on the most recent 60 months of chemical specific test results on file with the Department in accordance with the statistical approach outlined in Chapter 530. The statistical evaluation indicates there are no parameters that exceed or have a reasonable potential to exceed the acute, chronic or human health AWQC.

As for testing frequencies, Chapter 530(2)(D)(3)(c) states in part that Level III facilities "...*may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence.* "Based on the results of the 5/21/13 statistical evaluation, the permittee qualifies for the testing waiver. Therefore, this permitting action establishes a screening level analytical chemistry and priority pollutant testing requirements as follows:

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS FOR SURFACE WATER DISCHARGES (cont'd)

Outfall #001 - Process wastewater and boiler blowdown

During the period 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 if a timely request for renewal has been made and the permit continues in force, or is replaced by a permit renewal containing this requirement.

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

As with WET testing, Special Condition K, *06-096 CMR 530(2)(D)(4) Statement For Reduced/Waived Toxics Testing*, of this permitting action requires the permittee to file an annual certification with the Department.

Outfall #002 – Non-contact cooling water

m. Flow – The previous permitting action established a monthly average flow limit of 0.05 MGD that is being carried forward in this permitting action but is being expressed in terms of gallons per day (gpd) rather than million gallons per day (MGD). A review of the DMR data for the period October 2011 – April 2013 indicates flow data has been reported as follows:

Flow (DMRs = 19)

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	0.05	0.002 – 0.06	0.0132
Daily maximum	Report	0.008-0.11	0.0333

n. Temperature – The previous permit established a technology based daily maximum temperature limit of 90°F as being representative of the discharge temperature. The limitation is being reduced to 86°F (30°C) in this permitting action based on the calculations on page 22 of this Fact Sheet. A review of the DMR data for the period October 2011 – April 2013 indicates temperature data has been reported as follows:

Temperature (DMRs = 19)

Value	Limit (°F)	Range (°F)	Mean (°F)
Daily maximum	90	48 - 88	68

o. pH – The previous permit established a technology based pH range limitation of 6.0 – 9.0 standard units that is being carried forward in this permitting action. A review of the DMR data for the period October 2011 – April 2013 indicates data has been reported as follows:

pH (DMRs = 19)

Value	Limit (su)	Minimum (su)	Maximum (su)
Daily maximum	6.0 – 9.0	6.5	8.3

7. SPRAY IRRIGATION AND GROUND WATER

Slow rate land irrigation treatment is an environmentally-sound and appropriate technology for best practicable treatment and disposal of wastewater. The theory behind surface wastewater disposal systems is to utilize the top 10-12 inches of organic matter and in-situ soils to attenuate the pollutant loadings in the applied wastewaters. The soils and vegetation within the spray field area are intended to provide adequate filtration and absorption to preserve the integrity of the soil, and both surface and ground water quality in the area.

Tate & Lyle utilizes spray irrigation as a means of wastewater disposal when discharges via Outfall #001A are prohibited (based on ambient river conditions). The previous permitting action established monitoring and reporting requirements for Outfall #003A, which is the same source of wastewater that is conveyed to Outfall #001A but has been assigned a unique outfall number for data management and tracking purposes. The spray irrigation field has been assigned a data management tracking identifier of "SF-1". Spray irrigation is authorized during the period of May 15 through November 15 provided all other terms, conditions and restrictions established in this permit are achieved. In this permitting action, the Department is authorizing the use of the spray irrigation field for the disposal of non-contact cooling waters during the period of May 15 through November 15.

a. Wastewater Application Rate: The previous permitting action established weekly maximum and daily maximum wastewater application rates of 40,728 gallons per acre per week and 20,362 gallons per acre per day, respectively, for spray irrigation fields SF-1, which are being carried forward in this permitting action. These application rates are also applicable for spray irrigation of non-contact cooling waters to this disposal field (identified as SF-2 for data management purposes). The wastewater application rates are established as a margin of safety against hydraulically overloading a spray field and are based on the treatment capabilities of the in-situ soils. Regardless of the calculated rate, the system operator shall monitor each waste application to verify adequate infiltration of the waste into the soil and an irrigation cycle must be stopped if runoff occurs outside the boundary of the designated spray areas. If ground water monitoring well samples indicate levels above the action levels established for sodium and sulfate, the permittee shall immediately cease the spray irrigation of boiler blowdown and process waste waters on any areas up-gradient of the monitoring well(s) demonstrating the elevated level(s), until such time that ground water monitoring indicates that levels have fallen below the respective action levels.

   Tate and Lyle has applied for authorization to utilize the spray irrigation field for the application of non-contact cooling water to reduce ground water salt concentrations and to maintain a viable crop during periods of insufficient precipitation. Managing the spray irrigation field in this way, Tate & Lyle asserts, will accelerate the recovery of the soil and ground water and will eventually allow Tate & Lyle to utilize the field for wastewater disposal during periods when discharge to the Meduxnekeag River is prohibited. This permitting action authorizes the application of non-contact cooling water at the prescribed application rates on SF-1. For data management purposes, this permitting action is assigning an administrative identifier of SF-2 to

7. SPRAY IRRIGATION AND GROUND WATER (cont'd)

Spray Irrigation application rates

differentiate between disposal of boiler blowdown/process wastewater and non-contact cooling water via spray irrigation. At no time shall the application of spray irrigation waters from any source exceed the weekly maximum or daily maximum application rates established in the permit. This permitting action is establishing a monthly total flow reporting requirement for SF-1.

Tate & Lyle has not utilized the spray irrigation system since June 2006 due to elevated sodium and sulfate levels in ground water monitoring wells. **This permitting action requires the permittee to obtain written Department approval prior to commencing spray irrigation of boiler blowdown and process waste waters each spray irrigation season.**

A summary of the spray irrigation data as reported on the DMRs submitted to the Department for the period August 2003 through June 2006 is as follows:

Application Rate	Minimum	Maximum	Arithmetic Mean	# DMRs
Weekly Maximum	2,056 gal/ac/week	20,193 gal/ac/week	17,697 gal/ac/week	12
Daily Maximum	16,143 gal/ac/week	39,119 gal/ac/week	24,430 gal/ac/week	13

Outfall #003 – Spray irrigation effluent & ground water monitoring

a. Flow: The previous permitting action established, and this permitting action is carrying forward, a daily maximum effluent flow reporting requirement for Outfall #003A to distinguish the boiler blowdown and process waste waters that are disposed of through spray irrigation from the same waste waters disposed of through Outfall #001A to the Meduxnekeag River. It is noted that discharges via Outfall #003A may occur during the specified spray irrigation season of May 15 through November 15 of each year. Additionally, this permitting action is establishing a condition requiring the permittee to obtain, for each spray irrigation season, written Department approval prior to commencing spray irrigation of boiler blowdown and process waste waters to spray irrigation field SF-1. Department approval will be provided upon demonstrating to the Department's satisfaction that sodium and sulfate levels in ground water wells located down-gradient of proposed spray irrigation application(s). This permitting action is carrying forward the daily minimum monitoring frequency requirement from once per month to daily to ensure monitoring is representative of actual discharge conditions.

A summary of the spray irrigation data as reported on the DMRs submitted to the Department for the period August 2003 through June 2006 (most current period of use) is as follows:

Flow (DMRs = 13)

Value	Minimum	Maximum	Arithmetic Mean
Daily Maximum	33,900 gpd	158,200 gpd	101,700 gpd

7. SPRAY IRRIGATION AND GROUND WATER MONITORING (cont'd)

Outfall #003 – Spray irrigation effluent & ground water monitoring

b. BOD_5: The previous permitting action established a daily maximum concentration reporting requirement for BOD_5 for Outfall #003A. Monitoring for BOD_5 yields an indication of the condition of the waste water being applied, of the degree of loading of organic material and the effectiveness of the spray irrigation treatment process.

A summary of the effluent BOD_5 data as reported on the DMRs submitted to the Department for the period August 2003 through June 2006 (most current three-year period) for Outfall #003A indicates BOD_5 values as follows:

BOD concentration (DMRs = 13)

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Daily Maximum	Report	137- 885	470

This permitting action is carrying forward the daily maximum BOD_5 concentration monitoring and reporting requirement for Outfall #003A to provide information on organic loading of the spray irrigation field, and is carrying forward the minimum monitoring frequency requirements of once per month (when discharging during the authorized spray irrigation period).

c. Nitrate-nitrogen, total Kjeldahl nitrogen (TKN), total ammonia nitrogen (as N): The previous permitting action established daily maximum concentration monitoring reporting requirements for nitrate nitrogen, TKN, and total ammonia nitrogen for Outfall #003A established a daily maximum concentration limit of 10 mg/L for nitrate nitrogen in the ground water monitoring wells, which is the National Primary Drinking Water standard for this compound. Nitrate-nitrogen is weakly absorbed by soil and functions as a reliable indicator of contamination from waste disposal sites. Elevated levels of nitrate-nitrogen in ground water is a human health concern with respect to its use as a drinking water supply.

A summary of the nitrate-nitrogen, TKN, and total ammonia nitrogen data as reported on the DMRs submitted to the Department for the period August 2003 through June 2006 (most current three-year period of use) for Outfall #003A is as follows:

DMRs = 13

Nitrate-Nitrogen, TKN, and Total Ammonia Nitrogen in Outfall #003A			
Effluent Characteristic	Minimum	Maximum	Arithmetic Mean
Nitrate-Nitrogen (NO_3)	34 mg/L	152 mg/L	85 mg/L
Total Kjeldahl-Nitrogen	76 mg/L	986 mg/L	548 mg/L
Total Ammonia Nitrogen	0.2 mg/L	45 mg/L	10.8 mg/L

See **Attachment F** of this Fact Sheet for a summary of the groundwater monitoring date for nitrate-nitrogen, TKN, and total ammonia nitrogen dating back to calendar year 2002.

7. SPRAY IRRIGATION AND GROUND WATER MONITORING (cont'd)

Outfall #003 – Spray irrigation effluent & ground water monitoring

d. pH: The previous permitting action established a daily maximum pH range limitation of 6.0 – 9.0 standard units (SU) for Outfall #003 and the ground water monitoring wells for SF-1. pH is considered a surveillance level monitoring parameter that is used as an early-warning indicator of potential ground water contamination and is considered a best practicable treatment standard by the Department. This permit is carrying forward the minimum monitoring frequency requirements of once per month for Outfall #003A and once per month during the months of April and August of each year for the ground water monitoring wells.

A review of the Outfall #003A effluent pH data as reported on the DMRs submitted to the Department for the period August 2003 through June 2006 for Outfall #003 were reported as follow:

pH (DMRs = 13)

Value	Limit (su)	Range (su)	Mean (su)
Daily maximum	6.0	8.4	n/a

See **Attachment F** of this Fact Sheet for a summary of the groundwater monitoring date for pH dating back to calendar year 2002.

e. Sodium (Total) and Sulfate: The previous permitting action established daily maximum concentration reporting requirements for total sodium (as Na) and sulfate (as SO_4) for Outfall #003A and established daily maximum "action levels" of 120 mg/L and 250 mg/L for sodium and sulfate, respectively, for the ground water monitoring wells. There are currently no primary or secondary drinking water standards for sodium; however, the USEPA has utilized National Research Council recommended daily intake values for sodium to develop a proposed health-based benchmark value of 120 mg/L. Sulfate has a current secondary drinking water standard (Maximum Contaminant Level) of 250 mg/L, which is an aesthetic-based standard.

This permitting action is carrying forward the daily maximum action levels of 120 mg/L for sodium and 250 mg/L for sulfate in the ground water as an action levels based on best professional judgment. If ground water monitoring well samples indicate levels above the respective limits of 120 mg/L and 250 mg/L for sodium and sulfate, the permittee shall immediately cease the spray irrigation of boiler blowdown and process waste waters on any areas up-gradient of the monitoring well(s) demonstrating the elevated level(s), until such time that ground water monitoring indicates that levels have fallen below the action level. In addition, within 60 days of the occurrence(s), the permittee shall provide a report to the Department documenting the occurrence(s), addressing the cause(s) of the occurrence(s), and a course of action and implementation schedule for resolving the cause(s). This permitting action is carrying forward the daily maximum total sodium and sulfate monitoring and reporting requirements for Outfall #003A to provide information on the levels of these pollutants conveyed to the spray irrigation field for disposal. This permitting action is carrying forward the minimum monitoring frequency requirements of once per month (when discharging during the authorized spray irrigation period) for Outfall #003A and once per month during the months of April and August of each year for the ground water monitoring wells.

7. SPRAY IRRIGATION AND GROUND WATER MONITORING (cont'd)

Outfall #003 – Spray irrigation effluent & ground water monitoring

A review of the Outfall #003A effluent sodium and sulfate data as reported on the DMRs submitted to the Department for the period August 2003 through June 2006 for Outfall #003 were reported as follow:

Sodium (DMRs = 13)

Value	Action level (mg/L)	Range (mg/L)	Mean (mg/L)
Daily maximum	120	1,397 – 4,012	2,551

Sulfate (DMRs = 19)

Value	Action level (mg/L)	Range (mg/L)	Mean (mg/L)
Daily maximum	250	4,015 – 85,087	12,901

See **Attachment F** of this Fact Sheet for a summary of the groundwater monitoring date for sodium and sulfate dating back to calendar year 2002.

f. Specific Conductance: The previous permitting action established daily maximum specific conductance monitoring and reporting requirements for the ground water monitoring wells. Specific conductance is considered a surveillance level monitoring parameter that is used as an early-warning indicator of potential ground water contamination when monitoring indicates values over 275 umhos/cm, consistent trends approaching 275 umhos/cm or sudden spikes from previous levels.

A summary of the specific conductance data as reported on the DMRs submitted to the Department for the period August 2003 through June 2006 for Outfall #003A indicates the specific conductance vales were reported as follows:

Specific Conductance (DMRs = 13)

Value	Limit (umhos/cm)	Range (umhos/cm)	Mean (umhos/cm)
Daily maximum	Report	1,051-1,563	1,266

In consideration of the specific conductance values reported for ground water monitoring wells, this permitting action is carrying forward the daily maximum monitoring and reporting requirements the ground water monitoring wells. Historical ground water monitoring data collected from this site indicate that spray irrigation activities have adversely impacted ground water quality with respect to elevted sodium and sulfate levels. As a result, the Department established a prohibition on spray irrigation of boiler blowdown and process waste waters if ground water monitoring results for sodium, sulfate or nitrate-nitrogen are above the action

7. SPRAY IRRIGATION AND GROUND WATER (cont'd)

Outfall #003 – Spray irrigation effluent & ground water monitoring

levels established in Special Condition A of the permit. Continued monitoring for specific conductance along with other specific parameters will provide information to characterize changes in ground water quality over time. This permitting action is carrying forward the minimum monitoring frequency requirements of once per month during the months of April and August of each year for the ground water monitoring wells.

See **Attachment E** of this Fact Sheet for a summary of the groundwater monitoring date for specific conductance dating back to calendar year 2002.

g. Temperature: This permitting action is carrying forward a daily maximum temperature reporting requirement for ground water monitoring wells, which is required to properly calibrate specific conductance measurements.

8. ANTI-BACKSLIDING/ANTIDEGRADATION

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the water body to meet standards for Class B (Meduxnekeag River discharge) or Class GW-A (discharges to ground water via spray irrigation) classifications.

9. PUBLIC COMMENTS

Tate & Lyle Ingredients Americas LLC provided public notice of its intent to file an application to renew a combination Maine Pollutant Discharge Elimination System/Maine Waste Discharge License in the *Houlton Pioneer Times* on or about March 1, 2013. Public notice provided a 30-day opportunity to request a hearing on the application in accordance with *Rules Concerning the Processing of Applications and Other Administrative Matters*, 06-096 CMR 2(7)(A) (last amended May 29, 2013) and *Application Processing Procedures for Waste Discharge Licenses,* 06-096 CMR 522(8)(b)(1) (effective January 12, 2001) and for public comment on the application through issuance of the final agency action on the application, pursuant to 06-096 CMR 2(16). In accordance with *National Pollutant Discharge Elimination System Memorandum of Agreement Between the State of Maine and the United States Environmental Protection Agency Region 1*, Section 8.E., each person who receives a copy of a draft permit is allowed 30 days within which to submit comments.

10. DEPARTMENT CONTACTS

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

Gregg Wood
Division of Water Quality Management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-7693 Fax: (207) 287-3435
e-mail: gregg.wood@maine.gov

11. RESPONSE TO COMMENTS

During the period of August 9, 2013, through the issuance date of this permit, the Department solicited comments on the proposed draft permit to be issued for the discharge(s) from the Tate & Lyle facility. The Department received written comments from Tate & Lyle in an electronic mail message dated August 30, 2013, and from the Houlton Band of the Maliseet Indians (HBMI) in letters dated September 5, 2013, and September 9, 2013. Responses to comments received are as follows:

Comment #1: The HBMI has a concern that the ambient water quality threshold of 35 ug/L for total phosphorus utilized in calculations of page 18 of the Fact Sheet is not protective of the Meduxnekeag River watershed.

Response #1: The ambient water quality threshold of 35 ug/L utilized in the calculations on page 18 of the Fact Sheet should not be construed as the Department's adopted criteria or assimilative capacity for total phosphorus for the Meduxnekeag River or any other waterbody in Maine. The EPA has recently commented on several MEPDES permit indicating it wanted to see reasonable potential calculations in the Fact Sheets of permits. As the Fact Sheet states, the Department has based "historic water quality assessments" utilizing a threshold of 35 ug/L. Without any formally adopted AWQC for total phosphorus as of the date of this permitting action, the Department utilized the 35 ug/L in the calculation to be consistent with historic practices.

The calculations on page 18 of the Fact Sheet indicate that at full permitted flow, a permitted discharge concentration of 0.5 mg/L, a background concentration of 12 ug/L (consistent with the EPA approved September 2000 TMDL for the Meduxnekeag River) and the Meduxnekeag River at 7Q10 low flow conditions, the discharge from the Tate & Lyle facility will only increase the concentration in the receiving water by 3 ug/l, from 12 ug/L to 15 ug/L. Therefore, the 35 ug/l has no relevance in the permitting of the discharge. It is only in the Fact Sheet to compare what the Department historically used as a default threshold to what the maximum impact to the receiving water is based on Tate & Lyle discharging at maximum permit limitations and the Meduxnekeag River at critical low flow conditions.

11. RESPONSE TO COMMENTS (cont'd)

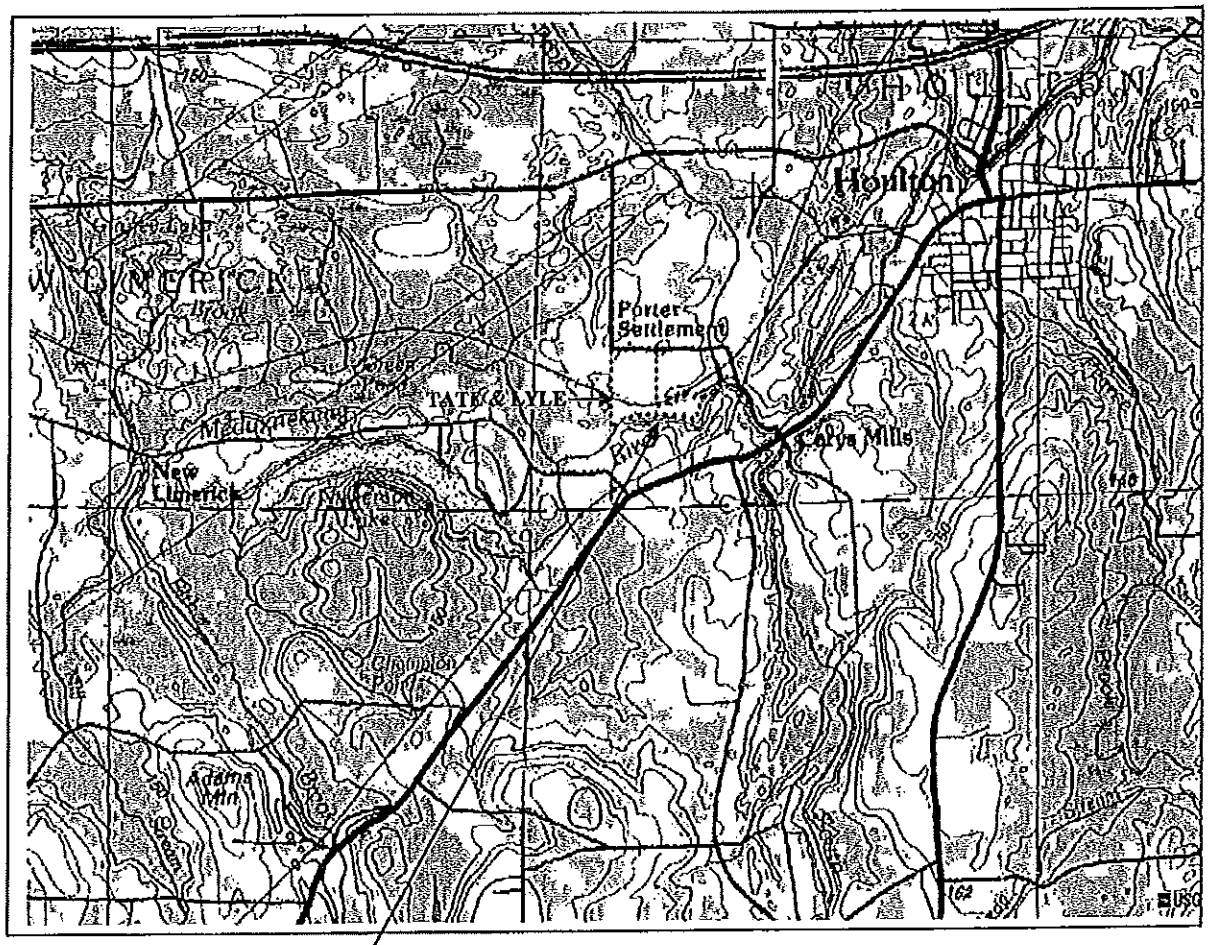
Comment #2 - The HBMI has indicated there is a discrepancy in the timeframe for the applicability of the dissolved oxygen limitations and monitoring requirements. On the tables in Special Condition A(1) & (2) indicate said limitations and monitoring are required between June 1 – September 15 of each year but footnote #4 of page 13 of the permit indicates dissolved oxygen monitoring is required between June 1 – September 30. The HBMI asserts the timeframes in the tables should be revised to June 1 – September 30 to be consistent with Maine Water Quality Standards in that the dissolved oxygen standard of 7.0 mg/L for Class B waters must be met through September 30th, therefore it would follow that effluent limitations should be monitored through the end of September. In addition the HBMI asserts total phosphorus seasonal limitations should be consistent with the summer season of June 1 – September 30, as total phosphorus concentrations in ambient river water have an impact on dissolved oxygen.

Response #2 – The timeframe of June 1 – September 30 in footnote #4 on page 13 of the permit was a typographical error and should have been June 1 – September 15. This timeframe of June 1 – September 15 was originally established in permits for the Tate & Lyle facility (formerly AE Staley Manufacturing) and Houlton Water Company dating back to 2003 and has been carried forward in subsequent permit renewals based on recommendations in the EPA approved TMDL dated September 2000. If the timeframe in the TMDL is modified in the future and subsequently approved by the EPA, this permit will be reopened pursuant to Special Condition M, *Reopening of Permit For Modifications*, to change the date accordingly. This final permit is correcting the timeframe in footnote #4 to read June 1 – September 15 to maintain consistency with the approved TMDL.

Comment #3: The HBMI assets the instream dissolved oxygen monitoring timeframe of beginning *"…within ½ hour of sunrise, provided there is enough light to safely sample, and no later than 8:00 AM"* in footnote #4 on page 13 of the permit may not be capturing the lowest dissolved oxygen levels in the river. The HBMI states its historical data indicates dissolved oxygen levels are substantially higher (up to 0.6 mg/L) when taken at 8:00 AM rather than at sunrise. Therefore, the HBMI recommends a sampling timeframe that ends no later than sunrise.

Response #3: The Department has historically utilized 0.2 mg/L as the instrument measurement error for dissolved oxygen. Based on the data provided by HBMI attached its comment letter, the dissolved oxygen levels generally increase by 0.2 mg/L no sooner than 2 hours after sunrise. Therefore, rather than establishing a time of 8:00 AM, footnote #4 in the final permit is being revised to read as follows: *"…within ½ hour of sunrise, provided there is enough light to safely sample, and no later than 2.0 hours after sunrise."*

ATTACHMENT A



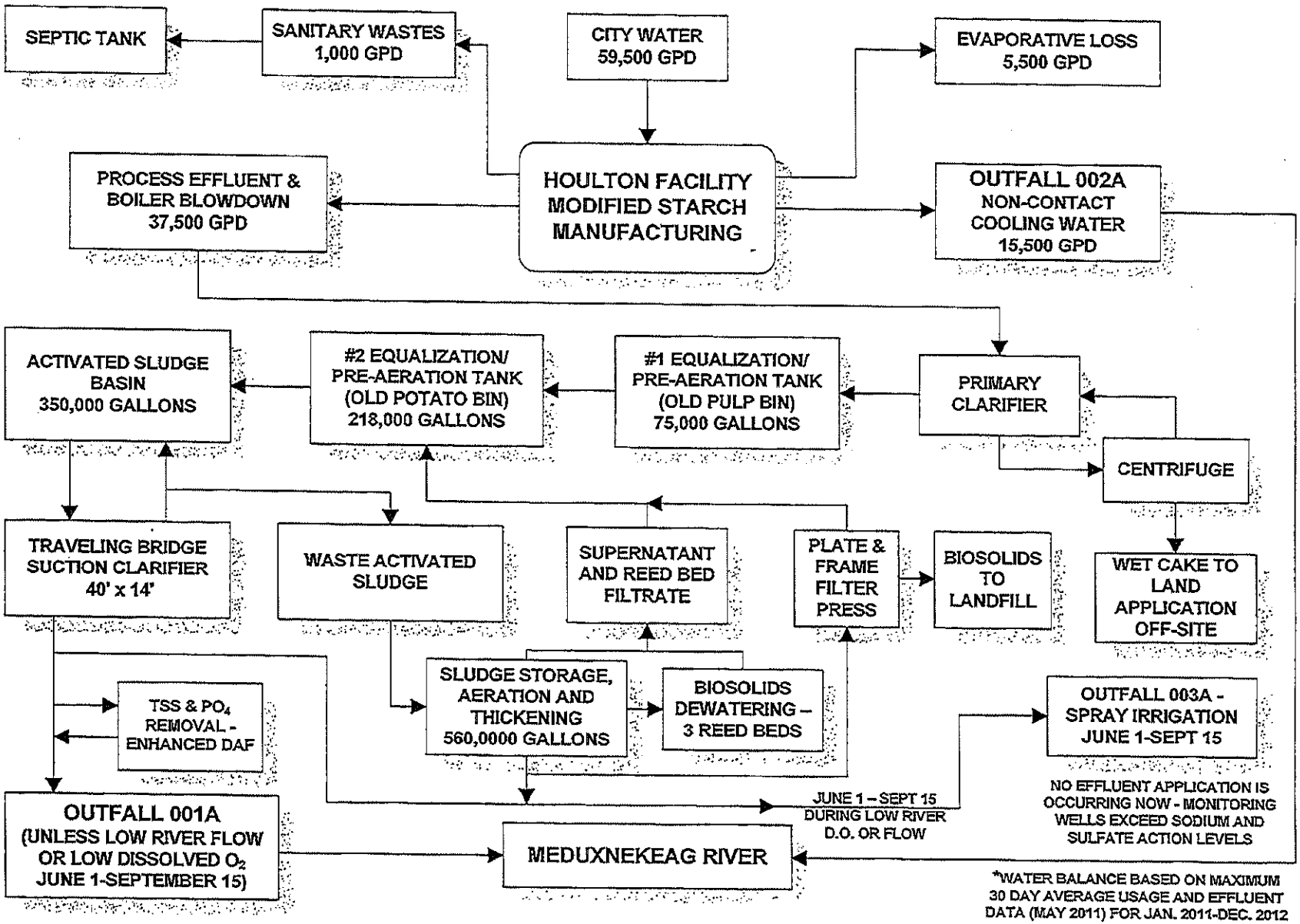
TATE & LYLE
HOULTON, MAINE

DISCHARGE POINTS
OUTFALL 001A – TREATED PROCESS WASTER
OUTFALL 002A – NON CONTACT COOLING WATER

ATTACHMENT B

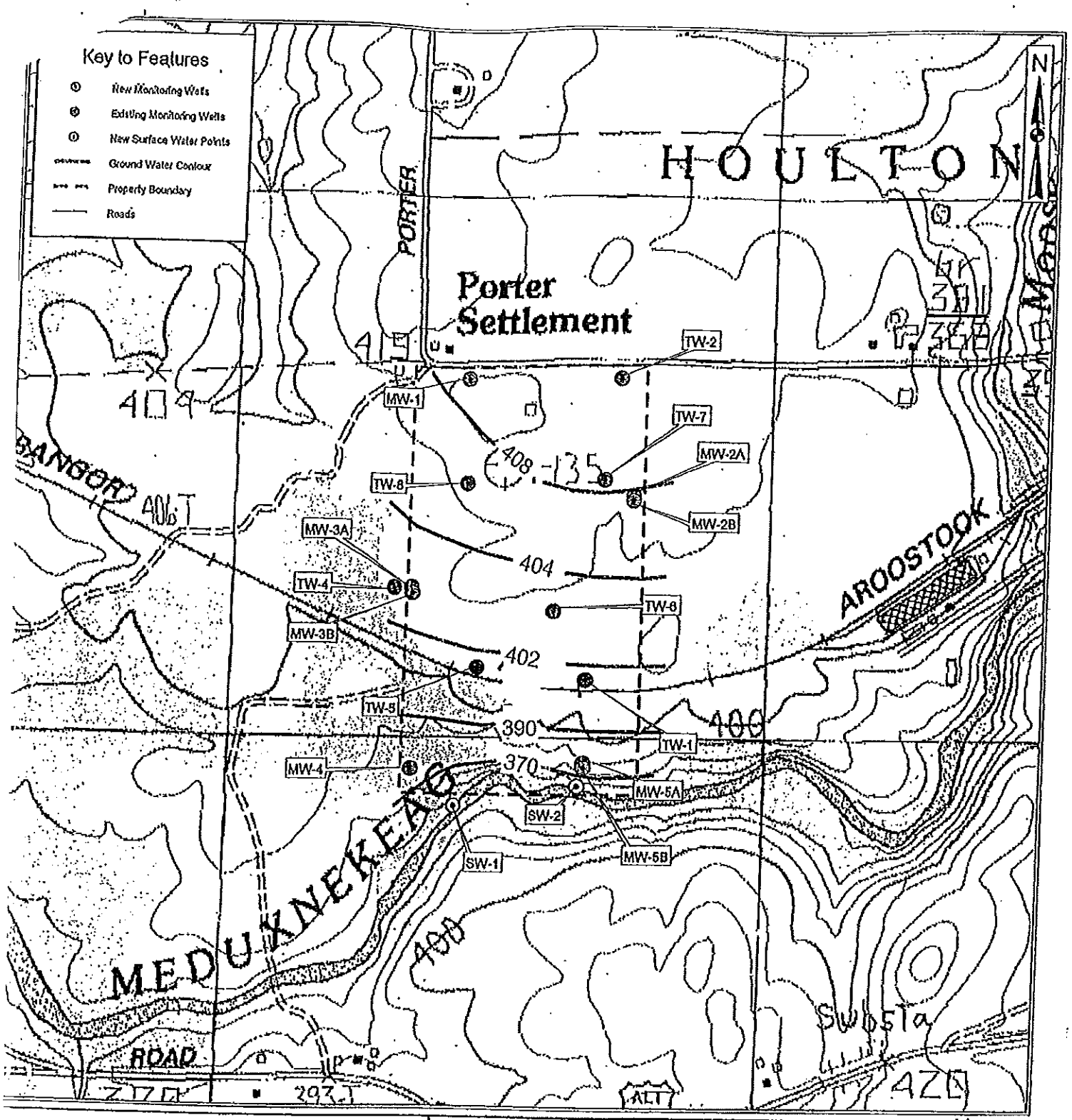
REV. 02/13

WATER BALANCE - WASTEWATER TREATMENT
TATE & LYLE - HOULTON FACILITY*



*WATER BALANCE BASED ON MAXIMUM 30 DAY AVERAGE USAGE AND EFFLUENT DATA (MAY 2011) FOR JAN. 2011-DEC. 2012

ATTACHMENT C



SCALE 1-Inch: 800 Feet

NOTES:
MW Series Wells located by GPS
TW Series Wells locations are approximate
(TW Series Wells are previously existing)

PROJECT #: 338
MAPPED BY: RCM
CHECKED BY: JEH
DATE: June 2002

FIGURE 3
Ground Water Surface Contours
(U.S.G.S. Topographic Coverage)
A.E. Staley Manufacturing Co.
Houlton, Maine

HILLIER & ASSOCIATES, INC.
45 MEMORIAL CIRCLE, SUITE 3001, AUGUSTA, ME
TELEPHONE: (207) 626-0613 FAX: (207) 626-7782

ATTACHMENT D

WET TEST REPORT

Data for tests conducted for the period

09/Aug/2008 - 09/Aug/2013

TATE & LYLE INGREDIENTS NPDES= ME0000221 Effluent Limit: Acute (%) = 0.615 Chronic (%) = 0.615

Species	Test	Percent	Sample date	Critical %	Exception	RP
TROUT	A_NOEL	100	04/25/2010	0.615		
TROUT	A_NOEL	100	10/23/2012	0.615		
TROUT	A_NOEL	100	04/23/2013	0.615		
TROUT	C_NOEL	100	04/25/2010	0.615		
TROUT	C_NOEL	30	10/23/2012	0.615		
TROUT	C_NOEL	30	04/23/2013	0.615		
WATER FLEA	A_NOEL	8	09/27/2009	0.615		
WATER FLEA	A_NOEL	25	04/25/2010	0.615		
WATER FLEA	A_NOEL	5.70	10/30/2011	0.615		
WATER FLEA	A_NOEL	4	02/12/2012	0.615		
WATER FLEA	A_NOEL	30	10/23/2012	0.615		
WATER FLEA	A_NOEL	30	04/23/2013	0.615		
WATER FLEA	C_NOEL	2	04/25/2010	0.615		
WATER FLEA	C_NOEL	2	10/30/2011	0.615		
WATER FLEA	C_NOEL	2	02/12/2012	0.615		
WATER FLEA	C_NOEL	15	10/23/2012	0.615		
WATER FLEA	C_NOEL	15	04/23/2013	0.615		

ATTACHMENT E

PRIORITY POLLUTANT DATA SUMMARY

Date Range: 09/Aug/2008 - 09/Aug/2013

Facility Name: **TATE & LYLE INGREDIENTS** NPDES: **ME0002216**

Test Date	Monthly (Flow MGD)	Daily (Flow MGD)	Total Test Number	Test # By Group M	V	BN	P	O	A	Clean	Hg
06/10/2009	0.03	0.04	14	10	0	0	0	4	0	F	0
09/27/2009	0.03	0.03	20	9	0	0	0	11	0	F	0
10/29/2009	0.03	0.04	14	10	0	0	0	4	0	F	0
04/25/2010	0.32	0.03	21	10	0	0	0	11	0	F	0
10/30/2011	0.03	0.02	21	10	0	0	0	11	0	F	0
11/01/2011	NR	NR	18	9	0	0	0	9	0	F	0
02/12/2012	0.03	0.03	19	10	0	0	0	9	0	F	0
06/17/2012	0.03	0.03	1	1	0	0	0	0	0	F	0
07/24/2012	0.03	0.04	11	10	0	0	0	1	0	F	0
10/23/2012	0.03	0.03	133	14	28	46	25	9	11	F	0
01/14/2013	0.03	0.03	11	10	0	0	0	1	0	F	0
04/23/2013	0.03	0.03	21	10	0	0	0	11	0	F	0

Key:

A = Acid O = Others P = Pesticides

BN = Base Neutral M = Metals V = Volatiles

ATTACHMENT F

TATE & LYLE
IRRIGATED FIELD
MONITORING WELL RESULTS
TABLE 1

SITE	DATE	CONDUCTIVITY (umhos/cm)	pH (s.u.)	AMMONIA-N (mg/l)	NITRATE-N (mg/l)	TKN (mg/l)	Sodium (mg/l)	SULFATE (mg/l)	COD (mg/l)	TOTAL P (mg/l)
MW-1	5/30/02	686	7.69	<2.0	6.43	<2.0	35	42	<5	0.36
	8/28/02	661	7.31	<2.0	8.49	<2.0	6	52	7	0.05
	12/9/02	604	6.94	<2.0	3.42	<2.0	3	46	<5	<0.05
	3/10/03	660	7.37	<2.0	4.15	<2.0	12	50	<5	0.05
	5/27/03	615	7.38	<2.0	3.09	<2.0	8	39	<5	0.05
	8/19/03	692	7.05	<2.0	4.38	<2.0	3	22	<5	<0.05
	11/18/03	493	6.25	<2.0	1.17	<2.0	3	36	<5	0.11
	4/6/04	370	7.88	<2.0	1.24	2.6	22	15	<5	0.11
	8/28/04	1220	7.30	<2.0	10.80	<2.0	85	258	9	<0.05
	11/2/04	742	7.17	<2.0	1.53	<2.0	3	40	8	<0.05
	4/20/05	365	7.26	<2.0	0.89	<2.0	2	31	<5	<0.05
	8/16/05	448	6.65	<2.0	1.61	<2.0	10	56	<5	<0.05
	11/8/05	818	7.24	<2.0	3.22	<2.0	93	279	5	<0.05
	4/5/06	781	7.46	<2.0	2.83	<2.0	52	141	<5	<0.05
	8/1/06	1290	6.89	<2.0	3.24	<2.0	115	328	7	<0.05
	11/14/06	688	7.00	<2.0	1.21	<2.0	82	204	8	<0.05
	4/30/07	431	7.36	<2.0	1.80	<2.0	29	68	<5	<0.05
	8/1/07	629	7.32	<2.0	2.61	<2.0	20	126	6	<0.05
	11/1/07	1480	7.09	<2.0	1.56	<2.0	54	110	<5	<0.05
	4/29/08	528	6.91	<2.0	0.48	<2.0	34	56	<5	<0.05
	8/13/08	661	7.01	<2.0	1.00	<2.0	34	56		
	11/17-18/08	508	7.21	<2.0	<1.0	<2.0	29	43		
	4/28/09	526	7.06	<2.0	1.20	<2.0	24	36		
	8/19/09	671	7.03	<2.0	1.10	<2.0	28	39		
	11/21/09	596	7.10	<2.0	<1.0	<2.0	24	39		
	4/28/10	911	7.53	<2.0	<1.0	<2.0	20	24		
	8/17/10	686	7.28	<2.0	<1.0	<2.0	27	53		
	11/2/10	721	6.20	<2.0	1.0	<2.0	35	56		
	4/20/11	429	6.83	<2.0	<1.0	<2.0	13	15		
	8/16/11	665	7.06	<2.0	<1.0	<2.0	20	16		
	11/2/11	684	6.80	<2.0	<1.0	<2.0	28	40		
	4/25/12	551	7.26	<2.0	<1.0	<2.0	19	18		
	8/4/12	537	7.35	<2.0	1.3	<2.0	13	19		
	11/16/12	449	7.40	<2.0	1.0	<2.0	12	20		
MW-2A	5/30/02	606	7.65	<2.0	0.28	<2.0	41	60	<5	<0.05
	8/28/02	685	7.29	<2.0	0.74	<2.0	61	107	9	<0.05
	12/10/02	688	7.13	<2.0	0.29	<2.0	61	105	<5	<0.05
	3/11/03	977	7.28	<2.0	0.16	<2.0	122	203	<5	0.08
	5/27/03	673	7.32	<2.0	0.16	<2.0	51	92	<5	<0.05
	8/19/03	728	7.18	<2.0	2.42	<2.0	43	41	<5	<0.05
	11/18/03	572	7.09	<2.0	0.23	<2.0	128	79	<5	0.14
	4/6/04	355	7.53	<2.0	0.29	<2.0	20	23	<5	0.28
	8/29/04	1200	7.10	<2.0	1.86	<2.0	110	290	6	<0.05
	11/2/04	467	7.09	<2.0	0.70	<2.0	70	162	8	<0.05
	4/20/05	5472	7.47	<2.0	0.57	<2.0	54	127	<5	<0.05
	8/16/05	2030	7.43	<2.0	0.72	<2.0	183	409	<5	<0.05
	11/8/05	685	7.08	<2.0	3.51	<2.0	96	265	5	<0.05
	4/5/06	1330	7.16	<2.0	1.41	<2.0	117	476	<5	<0.05
	8/1/06	640	7.23	<2.0	1.06	<2.0	88	308	5	<0.05
	12/7/06	498	7.02	<2.0	1.18	<2.0	90	266	<5	0.07
	4/30/07	753	7.19	<2.0	1.00	<2.0	97	150	<5	<0.05
	8/1/07	611	7.06	<2.0	1.09	<2.0	121	354	<5	<0.05
	11/1/07	1440	7.19	<2.0	0.60	<2.0	89	228	<5	<0.05
	4/29/08	428	7.08	<2.0	0.18	<2.0	19	34	<5	<0.05
	8/20/08	588	7.19	<2.0	<1.0	<2.0	57	84		
	11/17-18/08	550	7.06	<2.0	<1.0	<2.0	18	34		
	4/28/09	471	7.04	<2.0	<1.0	<2.0	22	42		
	8/19/09	604	7.13	<2.0	<1.0	<2.0	25	52		
	11/22/09	625	6.85	<2.0	<1.0	<2.0	22	45		
	4/28/10	1157	7.18	<2.0	<1.0	<2.0	27	59		
	8/18/10	667	6.62	<2.0	<1.0	<2.0	41	77		
	11/3/10	675	6.47	<2.0	<1.0	<2.0	41	79		
	4/20/11	496	6.39	<2.0	<1.0	<2.0	16	30		
	8/16/11	611	7.2	<2.0	<1.0	<2.0	34	65		
	11/2/11	527	6.96	<2.0	<1.0	<2.0	19	33		
	4/25/12	537	7.17	<2.0	<1.0	<2.0	35	57		
	8/4/12	558	6.96	<2.0	<1.0	<2.0	26	43		
	11/16/12	615	7.12	<2.0	1.0	<2.0	20	38		

TATE & LYLE
IRRIGATED FIELD
MONITORING WELL RESULTS
TABLE 1

SITE	DATE	CONDUCTIVITY (umhos/cm)	pH (s.u.)	AMMONIA-N (mg/l)	NITRATE-N (mg/l)	TKN (mg/l)	Sodium (mg/l)	SULFATE (mg/l)	COD (mg/l)	TOTAL P (mg/l)
MW-2B	5/30/02	1113	7.49	<2.0	<0.05	<2.0	135	248	<5	<0.05
	8/28/02	914	7.35	<2.0	0.84	<2.0	278	269	11	<0.05
	12/10/02	1620	7.01	<2.0	0.07	2.4	219	441	<5	<0.05
	3/11/03	1890	7.18	<2.0	<0.05	<2.0	267	581	<5	<0.05
	5/27/03	1800	7.17	<2.0	<0.05	<2.0	260	664	<5	<0.05
	8/19/03	1070	7.10	<2.0	2.85	<2.0	106	85	<5	<0.05
	11/18/03	965	6.70	<2.0	0.06	<2.0	37	207	<5	0.63
	4/6/04	604	7.42	<2.0	0.19	<2.0	90	87	<5	0.08
	8/29/04	1490	7.10	<2.0	0.12	<2.0	153	293	<5	<0.05
	11/2/04	458	7.10	<2.0	0.68	<2.0	20	214	11	<0.05
	4/20/05	1600	7.52	<2.0	<0.05	<2.0	232	472	6	<0.05
	8/16/05	531	7.53	<2.0	16.20	<2.0	254	810	9	<0.05
	11/8/05	1780	7.02	<2.0	3.79	<2.0	316	724	7	<0.05
	4/5/06	314	7.25	<2.0	0.56	<2.0	28	120	12	<0.05
	8/1/06	888	7.15	<2.0	0.05	<2.0	173	387	<5	<0.05
	12/7/06	611	6.98	<2.0	0.69	<2.0	163	282	<5	<0.05
	4/30/07	647	7.19	<2.0	<1.0	<2.0	70	169	<5	<0.05
	8/1/07	220	7.19	<2.0	0.47	<2.0	37	100	7	<0.05
	11/1/07	460	7.07	<2.0	0.61	<2.0	82	182	<5	<0.05
	4/29/08	164	6.83	<2.0	0.08	<2.0	9	11	<5	<0.05
	8/20/08	194	6.76	<2.0	<1.0	<2.0	14	6		
	11/17-18/08	221	6.85	<2.0	<1.0	<2.0	9	9		
	4/28/09	199	6.57	<2.0	<1.0	<2.0	9	11		
	8/19/09	238	6.84	<2.0	<1.0	<2.0	8	11		
	11/22/09	340	6.76	<2.0	<1.0	<2.0	8	11		
	4/28/10	1126	7.02	<2.0	<1.0	<2.0	8	15		
	8/18/10	196	6.40	<2.0	<1.0	<2.0	5	7		
	11/3/10	739	6.20	<2.0	<1.0	<2.0	58	107		
	4/20/11	189	6.43	<2.0	<1.0	<2.0	5.6	9		
	8/16/11	206	6.63	<2.0	<1.0	<2.0	4.7	5		
	11/2/11	206	6.61	<2.0	<1.0	<2.0	5	<5		
	4/25/12	212	6.94	<2.0	<1.0	<2.0	7.9	11		
	8/4/12	220	6.34	<2.0	<1.0	<2.0	4.7	5		
	11/16/12	184	7.02	<2.0	1.0	<2.0	4.2	8		
MW-3A	5/30/02	5051	7.23	<2.0	7.51	<2.0	1199	2350	11	<0.05
	8/28/02	4600	7.06	<2.0	5.96	<2.0	1050	2334	21	<0.05
	12/9/02	5300	6.86	<2.0	5.64	<2.0	1034	2325	17	<0.05
	3/10/03	5500	7.02	<2.0	4.99	<2.0	1151	2484	15	<0.05
	5/27/03	5330	7.07	<2.0	5.97	<2.0	1098	2210	16	<0.05
	8/19/03	5270	6.91	<2.0	15.95	<2.0	964	1676	<5	<0.05
	11/18/03	5180	6.41	<2.0	6.76	<2.0	1038	2412	18	0.09
	4/6/04	4900	7.24	<2.0	7.18	<2.0	1095	1867	24	0.06
	8/28/04	3790	6.98	<2.0	1.90	<2.0	599	1246	20	<0.05
	11/2/04	5460	6.93	<2.0	4.0	2	933	1817	23	<0.05
	4/20/05	3890	6.80	<2.0	1.31	<2.0	859	1373	17	<0.05
	8/16/05	3340	7.25	<2.0	4.44	<2.0	696	1264	26	<0.05
	11/8/05	3450	7.03	<2.0	4.20	<2.0	548	1136	31	0.06
	4/5/06	2570	7.22	<2.0	1.64	<2.0	567	692	28	<0.05
	8/1/06	2330	7.08	<2.0	2.26	<2.0	500	572	26	<0.05
	11/14/06	1705	6.89	<2.0	1.82	<2.0	549	531	22	<0.05
	4/30/07	1720	7.30	<2.0	1.80	<2.0	406	500	17	<0.05
	8/1/07	1260	7.23	<2.0	1.53	<2.0	412	504	17	<0.05
	11/1/07	2280	7.13	<2.0	1.50	<2.0	438	430	17	<0.05
	4/29/08	1510	7.53	<2.0	1.35	<2.0	336	224	16	<0.05
	8/13/08	1400	7.22	<2.0	1.60	<2.0	309	169		
	11/17-18/08	1390	7.39	<2.0	1.17	<2.0	283	115		
	4/28/09	1550	7.18	<2.0	1.20	<2.0	267	107		
	8/18/09	1230	7.47	<2.0	1.60	<2.0	256	92		
	11/21/09	1280	7.22	<2.0	<1.0	<2.0	307	83		
	4/28/10	940	7.50	<2.0	1.70	<2.0	239	63		
	8/17/10	1181	6.32	<2.0	1.64	<2.0	225	64		
	11/2/10	1170	6.55	<2.0	1.50	<2.0	235	65		
	4/21/11	1090	6.74	<2.0	1.33	<2.0	210	56		
	8/17/11	1130	7.33	<2.0	<1.0	<2.0	224	46		
	11/2/11	994	7.48	<2.0	1.10	<2.0	221	44		
	4/25/12	847	7.5	<2.0	1.05	<2.0	193	29		
	8/4/12	902	7.47	<2.0	1.01	<2.0	212	50		
	11/16/12	843	7.61	<2.0	1.2	<2.0	207	43		

TATE & LYLE
IRRIGATED FIELD
MONITORING WELL RESULTS
TABLE 1

SITE	DATE	CONDUCTIVITY (umhos/cm)	pH (s.u.)	AMMONIA-N (mg/l)	NITRATE-N (mg/l)	TKN (mg/l)	Sodium (mg/l)	SULFATE (mg/l)	COD (mg/l)	TOTAL P (mg/l)
MW-3B	5/30/02	5060	7.61	<2.0	10.1	<2.0	1273	2511	9	<0.05
	8/28/02	5010	7.00	<2.0	1.16	<2.0	1346	2697	31	<0.05
	12/9/02	6280	6.83	<2.0	8.44	<2.0	1255	2716	25	<0.05
	3/10/03	6100	6.99	<2.0	11.1	<2.0	1343	2677	22	<0.05
	5/27/03	5950	7.07	<2.0	10.6	<2.0	1284	2432	28	<0.05
	8/19/03	591	6.91	<2.0	39.9	<2.0	1084	1213	22	<0.05
	11/18/03	5110	6.47	<2.0	7.88	<2.0	1214	1917	37	0.16
	4/6/04	5530	7.26	<2.0	9.60	<2.0	1272	2083	40	0.09
	8/28/04	5340	7.04	<2.0	8.38	<2.0	1178	2163	37	<0.05
	11/2/04	6380	6.98	<2.0	6.01	<2.0	1174	2268	34	<0.05
	4/20/05	5600	6.67	<2.0	5.34	<2.0	1049	1686	29	<0.05
	8/16/05	3970	7.28	<2.0	6.97	<2.0	845	1551	33	<0.05
	11/8/05	3440	7.10	<2.0	5.62	<2.0	886	1162	33	0.13
	4/5/06	2510	7.70	<2.0	2.38	<2.0	587	682	45	<0.05
	8/1/06	2390	7.25	<2.0	2.58	<2.0	559	570	31	0.06
	11/14/06	1891	6.97	<2.0	2.95	<2.0	639	522	5	<0.05
	4/30/07	2080	7.33	<2.0	2.50	<2.0	504	131	20	<0.05
	8/1/07	1560	7.18	<2.0	2.34	<2.0	500	399	24	0.11
	11/1/07	2540	7.21	<2.0	2.01	<2.0	546	439	22	<0.05
	4/29/08	1560	7.35	<2.0	2.06	<2.0	373	200	24	<0.05
	8/13/08	1520	7.27	<2.0	1.60	<2.0	367	189		
	11/17-18/08	1640	7.46	<2.0	1.47	<2.0	339	161		
	4/28/09	1610	7.55	<2.0	1.10	<2.0	316	133		
	8/18/09	1420	7.58	<2.0	1.50	<2.0	313	150		
	11/21/09	1560	7.29	<2.0	<1.0	<2.0	388	141		
	4/28/10	1057	7.57	<2.0	1.50	<2.0	285	110		
	8/17/10	1387	6.86	<2.0	1.42	<2.0	295	117		
	11/2/10	1420	6.55	<2.0	1.30	<2.0	309	125		
	4/21/11	1190	6.77	<2.0	1.35	<2.0	248	75		
	8/17/11	1160	7.51	<2.0	<1.0	<2.0	227	64		
	11/2/11	1270	7.55	<2.0	<1.0	<2.0	244	66		
	4/25/12	1030	7.87	<2.0	1.15	<2.0	243	62		
	8/4/12	933	7.57	<2.0	1.08	<2.0	209	58		
	11/16/12	951	7.66	<2.0	1.6	<2.0	209	48		
MW-4	5/30/02	1109	7.63	<2.0	0.06	<2.0	113	303	24	<0.05
	8/28/02	867	7.55	<2.0	<0.50	2.0	35	308	5	<0.05
	3/10/03	720	7.67	<2.0	<0.05	<2.0	31	297	<5	0.12
	5/27/03	846	7.68	<2.0	<0.05	<2.0	36	199	<5	<0.05
	8/19/03	920	7.31	<2.0	0.70	<2.0	31	65	<5	<0.05
	11/18/03	910	7.10	<2.0	0.10	<2.0	44	59	<5	0.24
	4/6/04	559	7.94	<2.0	<0.05	<2.0	52	83	<5	0.12
	8/28/04	660	7.26	<2.0	<0.05	<2.0	25	129	5	<0.05
	11/2/04	1030	7.47	<2.0	<0.05	<2.0	33	179	6	0.25
	4/20/05	602	5.50	<2.0	<0.05	<2.0	28	181	<5	<0.05
	8/16/05	509	7.56	<2.0	<0.50	<2.0	29	180	<5	<0.05
	11/8/05	527	7.47	<2.0	0.06	<2.0	28	237	<5	<0.05
	4/5/06	626	7.62	<2.0	0.10	<2.0	26	154	7	<0.05
	8/1/06	463	7.47	<2.0	<0.50	<2.0	25	130	<5	0.05
	11/14/06	621	7.14	<2.0	<0.05	<2.0	27	141	<5	<0.05
	4/30/07	462	7.44	<2.0	<1.0	<2.0	33	125	<5	<0.05
	8/1/07	485	7.45	<2.0	<0.05	<2.0	27	180	<5	<0.05
	11/1/07	692	7.42	<2.0	<0.05	<2.0	33	161	<5	<0.05
	4/29/08	612	7.46	<2.0	<0.05	<2.0	29	149	<5	<0.05
	8/13/08	651	7.36	<2.0	<1.0	<2.0	25	133		
	11/17-18/08	752	7.56	<2.0	<1.0	<2.0	24	147		
	4/28/09	867	7.57	<2.0	<1.0	<2.0	26	162		
	8/18/09	678	7.74	<2.0	<1.0	<2.0	22	136		
	11/22/09	662	7.38	<2.0	<1.0	<2.0	25	136		
	4/27/10	926	7.22	<2.0	<1.0	<2.0	20	118		
	8/18/10	735	6.89	<2.0	<1.0	<2.0	25	154		
	11/3/10	712	6.66	<2.0	<1.0	<2.0	24	131		
	4/20/11	752	6.26	<2.0	<1.0	<2.0	21	133		
	8/16/11	722	7.91	<2.0	<1.0	<2.0	24	147		
	11/2/11	640	7.26	<2.0	<1.0	<2.0	22	112		
	4/25/12	632	7.33	<2.0	<1.0	<2.0	22	126		
	4/26/12	632	7.33	<2.1	<1.1	<2.1	22	126		
	4/26/12	632	7.33	<2.1	<1.1	<2.1	22	126		
	8/4/12	669	7.55	<2.0	<1.0	<2.0	25	137		
	11/17/12	678	7.60	<2.0	1.0	<2.0	25	133		

TATE & LYLE
IRRIGATED FIELD
MONITORING WELL RESULTS
TABLE 1

SITE	DATE	CONDUCTIVITY (umhos/cm)	pH (s.u.)	AMMONIA-N (mg/l)	NITRATE-N (mg/l)	TKN (mg/l)	Sodium (mg/l)	SULPATE (mg/l)	COD (mg/l)	TOTAL P (mg/l)
MW-5A	5/30/02	459	7.72	<2.0	0.07	<2.0	8.7	37	<5	0.07
	8/28/02	478	7.55	<2.0	0.50	<2.0	162	368	5	0.05
	12/10/02	528	7.33	<2.0	0.13	<2.0	7.6	28	<5	<0.05
	3/11/03	475	7.54	<2.0	0.10	<2.0	7.0	26	<5	<0.05
	5/27/03	510	7.39	<2.0	0.07	<2.0	6.6	28	<5	<0.05
	8/19/03	608	7.28	<2.0	0.97	<2.0	8.5	13	<5	0.07
	11/18/03	502	6.95	<2.0	<0.05	<2.0	7.6	248	<5	0.44
	4/6/04	359	7.74	<2.0	0.05	<2.0	7.6	16	<5	0.15
	8/28/04	491	7.27	<2.0	0.08	<2.0	7.9	25	7	<0.05
	11/2/04	619	7.26	<2.0	0.06	<2.0	8.1	35	<5	<0.05
	4/20/05	397	7.09	<2.0	0.05	<2.0	7.4	27	<5	0.06
	8/16/05	351	7.59	<2.0	<0.50	<2.0	7.8	25	<5	<0.05
	11/8/05	391	7.24	<2.0	0.11	<2.0	7.7	28	<5	<0.05
	4/5/06	456	7.41	<2.0	0.06	<2.0	6.8	21	5	0.07
	8/1/06	329	7.28	<2.0	0.05	<2.0	6.7	21	5	<0.05
	11/14/06	432	6.95	<2.0	0.05	<2.0	9.6	19	5	<0.05
	4/30/07	325	7.32	<2.0	<1.0	<2.0	7.0	15	<5	<0.05
	8/1/07	313	7.37	<2.0	<0.05	<2.0	7.8	24	<5	<0.05
	11/1/07	608	7.22	<2.0	<0.05	<2.0	9.4	21	<5	<0.05
	4/29/08	448	7.37	<2.0	<0.05	<2.0	6.2	16	<5	<0.05
	8/13/08	472	7.21	<2.0	<1.0	<2.0	7.8	18		
	11/17-18/08	383	7.35	<2.0	<1.0	<2.0	6.6	17		
	4/29/09	375	7.46	<2.0	<1.0	<2.0	5.8	15		
	8/19/09	462	7.47	<2.0	<1.0	<2.0	6.1	16		
	11/22/09	566	7.21	<2.0	<1.0	<2.0	7.2	16		
	4/27/10	1037	7.26	<2.0	<1.0	<2.0	5.7	14		
	8/18/10	482	7.36	<2.0	<1.0	<2.0	6.1	17		
	11/3/10	471	6.58	<2.0	<1.0	<2.0	6.1	16		
	4/20/11	469	6.76	<2.0	<1.0	<2.0	5.8	14		
	8/16/11	454	7.59	<2.0	<1.0	<2.0	6.1	13		
	11/2/11	454	7.2	<2.0	<1.0	<2.0	6.5	12		
	4/25/12	417	7.38	<2.0	<1.0	<2.0	5.5	12		
	8/4/12	473	7.36	<2.0	<1.0	<2.0	5.8	15		
	11/17/12	499	7.19	<2.0	1.0	<2.0	6.0	11		
MW-5B	5/30/02	851	7.68	<2.0	<0.05	<2.0	57	206	<5	0.05
	8/28/02	798	7.56	<2.0	0.72	<2.0	78	219	5	<0.05
	12/10/02	528	7.33	<2.0	0.13	<2.0	7.6	28	<5	<0.05
	3/11/03	1380	7.52	<2.0	<0.05	<2.0	111	287	<5	<0.05
	5/27/03	1190	7.42	<2.0	<0.05	<2.0	75	148	<5	<0.05
	8/19/03	1340	7.30	<2.0	4.02	<2.0	123	231	<5	<0.05
	11/18/03	1220	7.20	<2.0	<0.05	<2.0	77	199	<5	0.28
	4/6/04	928	7.66	<2.0	<0.05	<2.0	118	200	<5	0.08
	8/28/04	1360	7.30	<2.0	<0.05	<2.0	131	387	<5	<0.05
	11/2/04	1670	7.25	<2.0	<0.05	<2.0	132	343	<5	<0.05
	4/20/05	1370	6.99	<2.0	<0.05	<2.0	130	425	<5	<0.05
	8/16/05	837	7.57	<2.0	<0.50	<2.0	119	366	<5	<0.05
	11/8/05	903	7.25	<2.0	<0.05	<2.0	126	483	<5	0.1
	4/5/06	1280	7.36	<2.0	<0.05	<2.0	98	348	5	0.05
	8/1/06	777	7.36	<2.0	<0.05	<2.0	106	323	<5	0.05
	11/14/06	909	7.00	<2.0	<0.05	<2.0	92	279	<5	<0.05
	4/30/07	852	7.31	<2.0	<1.0	<2.0	92	277	<5	<0.05
	8/1/07	650	7.30	<2.0	<0.05	<2.0	95	330	<5	<0.05
	11/1/07	1660	7.25	<2.0	<0.05	<2.0	101	311	<5	0.09
	4/29/08	1280	7.29	<2.0	<0.05	<2.0	108	331	10	<0.05
	8/13/08	1180	7.16	<2.0	<1.0	<2.0	106	320		
	11/17-18/08	1276	7.34	<2.0	<1.0	<2.0	104	322		
	4/28/09	1410	7.34	<2.0	<1.0	<2.0	101	317		
	8/19/09	1140	7.48	<2.0	<1.0	<2.0	91	289		
	11/22/09	1250	7.26	<2.0	<1.0	<2.0	98	273		
	4/27/10	564	7.25	<2.0	<1.0	<2.0	42	140		
	8/18/10	519	7.38	<2.0	<1.0	<2.0	52	172		
	11/3/10	874	6.71	<2.0	<1.0	<2.0	65	199		
	4/20/11	1260	7.61	<2.0	<1.0	<2.0	106	377		
	8/16/11	348	7.39	<2.0	<1.0	<2.0	7.2	17		
	11/2/11	1390	7.26	<2.0	<1.0	<2.0	107	296		
	4/25/12	1020	7.3	<2.0	<1.0	<2.0	104	298		
	8/4/12	1190	7.31	<2.0	<1.0	<2.0	109	303		
	11/17/12	1120	7.19	<2.0	1.0	<2.0	102	314		

TATE & LYLE
IRRIGATED FIELD
MONITORING WELL RESULTS
TABLE 1

SITE	DATE	CONDUCTIVITY (umhos/cm)	pH (s.u.)	AMMONIA-N (mg/l)	NITRATE-N (mg/l)	TKN (mg/l)	Sodium (mg/l)	SULFATE (mg/l)	COD (mg/l)	TOTAL P (mg/l)
SW-1	5/30/02	146	7.97	<2.0	0.06	<2.0	4.1	8	<5	<0.05
	8/28/02	188	7.94	<2.0	<0.50	<2.0	4.5	<5	19	<0.05
	12/10/02	177	7.34	<2.0	0.34	<2.0	4.5	8	11	<0.05
	5/27/03	171	7.61	<2.0	0.14	<2.0	5.6	8	<5	<0.05
SW-2	5/30/02	137	7.99	<2.0	0.07	<2.0	5.3	7	5	<0.05
	8/28/02	164	7.92	<2.0	<0.50	<2.0	4.4	<5	20	<0.05
	12/10/02	176	7.21	<2.0	0.24	<2.0	6.5	16	11	<0.05
	3/10/03	196	7.06	<2.0	0.71	2.0	5.3	10	8	<0.05
	5/27/03	193	7.63	<2.0	0.17	<2.0	7.1	12	9	<0.05
TW-1	5/30/02	1094	7.57	<2.0	0.05	<2.0	147	259	7	0.07
	5/27/03	1210	7.12	<2.0	0.06	<2.0	142	186	7	0.05
	8/19/03	1170	6.96	<2.0	2.69	<2.0	124	90	<5	0.08
	11/18/03	1780	6.74	<2.0	<0.05	<2.0	209	349	<5	0.06
	4/6/04	868	7.36	<2.0	<0.05	<2.0	167	133	<5	0.14
	8/29/04	1180	7.27	<2.0	0.20	<2.0	144	100	12	0.09
	11/2/04	1400	6.87	<2.0	0.05	<2.0	141	195	12	0.05
	4/20/05	661	5.22	<2.0	0.05	<2.0	102	153	<5	<0.05
	8/16/05	626	7.30	<2.0	<0.50	<2.0	114	63	18	0.18
	11/8/05	816	6.96	<2.0	0.07	2	138	156	12	0.05
	4/5/06	440	6.77	<2.0	0.05	<2.0	44	57	18	0.41
	8/1/06	551	6.91	<2.0	0.09	2	95	71	38	0.29
	12/7/06	360	6.88	<2.0	0.06	<2.0	63	62	<5	0.05
	4/30/07	549	7.03	<2.0	<1.0	<2.0	54	75	<5	0.05
	8/1/07	513	6.88	<2.0	<0.05	<2.0	82	95	11	0.11
	11/1/07	1460	7.12	<2.0	1.67	<2.0	86	113	7	0.06
	4/29/08	698	6.91	<2.0	<0.05	<2.0	70	111	<5	<0.05
	8/13/08	783	6.80	<2.0	<1.0	<2.0	80	44		
	11/17-18/08	837	7.15	<2.0	<1.0	<2.0	71	65		
	4/29/09	790	6.95	<2.0	<1.0	<2.0	40	30		
	8/19/09	743	6.88	<2.0	<1.0	<2.0	67	15		
	11/21/09	715	6.93	<2.0	<1.0	<2.0	65	68		
	4/27/10	558	6.90	<2.0	<1.0	<2.0	50	44		
	11/3/10	520	6.02	<2.0	<1.0	<2.0	31	20		
	4/20/11	811	7.37	<2.0	<1.0	<2.0	56	82		
	8/16/11	848	7.2	<2.0	<1.0	<2.0	50	20		
	11/2/11	748	6.85	<2.0	1.60	<2.0	41	23		
	4/25/12	39	7.05	<2.0	<1.0	<2.0	94	12		
	8/4/12	742	6.82	<2.0	<1.0	<2.0	30	13		
	11/17/12	788	7.00	<2.0	1.0	<2.0	61	28		
TW-5	5/30/02	1953	7.95	<2.0	0.08	<2.0	334	1091	<5	0.11
	8/28/02	1367	7.77	<2.0	1.55	<2.0	230	473	11	<0.05
	12/9/02	1910	7.14	<2.0	0.43	<2.0	302	624	<5	<0.05
	5/27/03	1980	7.27	<2.0	0.07	<2.0	328	111	<5	0.06
	8/19/03	1940	7.20	<2.0	2.42	<2.0	282	369	<5	<0.05
	11/18/03	1950	6.78	<2.0	0.05	<2.0	300	548	<5	0.09
	4/6/04	1660	7.53	<2.0	<0.05	<2.0	277	300	<5	0.32
	8/28/04	1380	7.15	<2.0	0.10	<2.0	187	217	5	<0.05
	11/2/04	1710	7.14	<2.0	0.13	<2.0	210	396	5	<0.05
	4/20/05	1600	7.61	<2.0	0.05	<2.0	241	362	<5	0.11
	8/16/05	1560	7.36	<2.0	<0.50	<2.0	258	552	<5	0.26
	11/8/05	1660	7.08	<2.0	0.08	<2.0	256	546	5	0.17
	4/5/06	1590	7.26	<2.0	0.06	<2.0	231	464	7	0.14
	8/1/06	935	7.14	<2.0	0.06	<2.0	219	392	8	0.06
	12/7/06	750	7.03	<2.0	0.07	<2.0	237	402	<5	<0.05
	4/30/07	351	7.31	<2.0	<1.0	<2.0	41	46	<5	<0.05
	8/1/07	906	7.05	<2.0	<0.05	<2.0	97	146	<5	0.69
	11/1/07	910	7.08	<2.0	0.27	<2.0	80	91	<5	0.1
	4/29/08	951	7.16	<2.0	0.07	<2.0	174	249	<5	<0.05
	8/13/08	1190	7.13	<2.0	<1.0	<2.0	181	266		
	11/17-18/08	1230	7.25	<2.0	<1.0	<2.0	155	232		
	4/29/09	1270	7.26	<2.0	<1.0	<2.0	138	196		
	8/18/09	1080	7.31	<2.0	<1.0	<2.0	143	203		
	11/21/09	1090	7.08	<2.0	<1.0	<2.0	140	174		
	4/27/10	851	7.17	<2.0	<1.0	<2.0	131	167		
	8/17/10	941	6.74	<2.0	<1.0	<2.0	119	158		
	11/2/10	789	6.15	<2.0	<1.0	<2.0	90	111		
	4/21/11	735	6.64	<2.0	<1.0	<2.0	65	88		
	8/17/11	690	7.85	<2.0	<1.0	<2.0	55	53		
	11/2/11	173	7.22	<2.0	<1.0	<2.0	78	76		
	4/25/12	655	7.18	<2.0	<1.0	<2.0	58	51		
	8/4/12	876	7.21	<2.0	<1.0	<2.0	61	119		
	11/16/12	740	7.28	<2.0	1.0	<2.0	83	80		

TATE & LYLE
IRRIGATED FIELD
MONITORING WELL RESULTS
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TW-6	8/28/02	2770	7.52	<2.0	2.18	2.0	635	572	19	0.13
	5/27/03	2840	7.30	<2.0	0.06	<2.0	530	1067	16	<0.05
	8/19/03	3010	7.18	<2.0	2.73	<2.0	517	425	12	0.12
	11/18/03	3370	6.98	<2.0	2.29	<2.0	617	1542	50	2.56
	4/6/04	1880	7.55	2.0	0.18	7.4	383	400	122	0.61
	11/2/04	3750	7.11	<2.0	1.40	2	628	1302	19	0.28
	4/20/05	2300	6.29	<2.0	0.14	<2.0	436	873	17	0.35
	8/16/05	1760	7.57	<2.0	<0.50	2.5	29	786	12	0.7
	11/8/05	1600	7.28	<2.0	0.14	<2.0	337	501	21	0.28
	4/5/06	1220	7.28	3.0	0.06	5.6	215	1365	47	0.9
	8/1/06	801	7.40	<2.0	0.25	4.9	151	304	20	74
	12/7/06	704	7.18	<2.0	1.09	<2.0	173	366	<5	0.17
	4/30/07	603	7.34	<2.0	<1.0	<2.0	146	127	12	0.30
	8/1/07	376	7.31	2.7	0.16	3.8	145	102	14	0.05
	4/29/08	456	7.36	<2.0	0.10	<2.0	103	54	13	<0.05
	8/20/08	1110	7.15	<2.0	<1.0	2.0	293	142		
	11/17-18/08	888	8.17	<2.0	<1.0	2.5	144	105		
	4/29/09	890	7.33	<2.0	<1.0	<2.0	118	71		
	8/19/09	1080	7.35	<2.0	<1.0	<2.0	161	140		
	11/22/09	816	7.24	2.5	<1.0	2.7	130	90		
	4/27/10	896	7.27	<2.0	<1.0	<2.0	99	20		
	11/3/10	799	5.79	<2.0	1.70	<2.0	126	81		
	4/20/11	596	6.9	<2.0	<1.0	<2.0	92	52		
	8/16/11	409	7.41	9.5	<1.0	10.6	56	28		
	11/2/11	800	7.13	<2.0	<1.0	<2.0	134	48		
	4/25/12	580	7.23	<2.0	4.28	<2.0	83	21		
	4/26/12	580	7.23	<2.1	5.28	<2.1	83	21		
	8/4/12	518	7.26	6.9	<1.0	7.7	74	27		
	11/16/12	766	7.44	<2.0	1.0	<2.0	121	84		
TW-8	5/30/02	3011	7.87	<2.0	3.57	<2.0	574	1511	5	<0.05
	12/9/02	3580	6.98	<2.0	3.39	2.0	617	1271	<5	<0.05
	5/27/03	3330	7.16	<2.0	1.08	<2.0	570	248	<5	<0.05
	11/18/03	3380	6.44	<2.0	0.86	<2.0	629	1542	8	0.06
	4/20/05	2550	9.67	<2.0	1.60	<2.0	448	951	8	0.14
	11/8/05	2540	7.02	<2.0	0.71	<2.0	479	457	8	<0.05
	12/7/06	2030	6.95	<2.0	1.08	<2.0	353	546	<5	0.15
	4/30/07	1530	7.30	<2.0	1.00	<2.0	290	327	5	0.19
	4/29/08	962	7.17	<2.0	0.65	<2.0	217	314	<5	<0.05
	8/13/08	1340	7.09	<2.0	1.00	<2.0	255	309		
	11/17-18/08	1690	7.2	<2.0	<1.0	<2.0	259	326		
	4/28/09	1560	7.07	<2.0	<1.0	<2.0	220	209		
	11/21/09	1300	7.05	<2.0	<1.0	<2.0	180	202		
	4/21/11	662	6.55	<2.0	<1.0	<2.0	86	65		
	4/25/12	676	7.49	<2.0	1.34	<2.0	92	78		
	11/16/12	835	6.97	<2.0	1.1	<2.0	105	78		

ATTACHMENT G

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHAPTER 530.2(D)(4) CERTIFICATION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
Commissioner

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.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

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

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

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207)760-3143

web site: www.maine.gov/dep

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

CONTENTS

A. GENERAL PROVISIONS

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

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

(a) They are not

(i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
(ii) Known to be hazardous or toxic by the licensee.

(b) The discharge of such materials will not violate applicable water quality standards.

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

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

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

5. **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

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

7. Oil and hazardous substances. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the Federal Clean Water Act; section 106 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; or 38 MRSA §§ 1301, et. seq.

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

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

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

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

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

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
(d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B. OPERATION AND MAINTENACE OF FACILITIES

1. General facility requirements.

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

maximize removal of pollutants unless authorization to the contrary is obtained from the Department.

(b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.

(c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.

(d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.

(e) The permittee shall install flow measuring facilities of a design approved by the Department.

(f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

2. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

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

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

5. Bypasses.

(a) Definitions.

(i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

(ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.

(c) Notice.

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).

(d) Prohibition of bypass.

(i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(C) The permittee submitted notices as required under paragraph (c) of this section.

(ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

(a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;
(ii) The permitted facility was at the time being properly operated; and
(iii) The permittee submitted notice of the upset as required in paragraph D(1)(f) , below. (24 hour notice).
(iv) The permittee complied with any remedial measures required under paragraph B(4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

C. MONITORING AND RECORDS

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

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

3. Monitoring and records.

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

(c) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;
(ii) The individual(s) who performed the sampling or measurements;
(iii) The date(s) analyses were performed;
(iv) The individual(s) who performed the analyses;
(v) The analytical techniques or methods used; and
(vi) The results of such analyses.

(d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.

(e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

D. REPORTING REQUIREMENTS

1. Reporting requirements.

(a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

(ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).

(iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;

(b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.

(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.

(iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.

(e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(f) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

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

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

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit.
(B) Any upset which exceeds any effluent limitation in the permit.
(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

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

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

(h) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

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

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

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

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

(i) One hundred micrograms per liter (100 ug/l);
(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

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

(i) Five hundred micrograms per liter (500 ug/l);
(ii) One milligram per liter (1 mg/l) for antimony;
(iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

(a) All POTWs must provide adequate notice to the Department of the following:

(i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
(ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
(iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

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

(a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.

(b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

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

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

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

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

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

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

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

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

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

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

Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

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

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

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

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

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

Maximum daily discharge limitation means the highest allowable daily discharge.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012 **Contact: (207) 287-2811**

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

Other Considerations in Appealing a Decision to the Board

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

What to Expect Once You File a Timely Appeal with the Board

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.