

IN THE MATTER OF

LEWISTON-AUBURN WATER	)	MAINE POLLUTANT DISCHARGE
POLLUTION CONTROL AUTHORITY	)	ELIMINATION SYSTEM PERMIT
LEWISTON, ANDROSCOGGIN COUNTY, ME	)	AND
PUBLICLY OWNED TREATMENT WORKS	)	WASTE DISCHARGE LICENSE
ME0101478	)	
W000682-5T-F-R	)	
<b>APPROVAL</b>	)	<b>RENEWAL</b>

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251 et seq. and Maine Law 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Department of Environmental Protection (Department) has considered the application of the LEWISTON-AUBURN WATER POLLUTION CONTROL AUTHORITY (LAWPCA), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

**APPLICATION SUMMARY**

The applicant has applied to the Department for renewal of Waste Discharge License # W000682-47-C-R, which was issued on July 11, 1995 and expired on July 11, 1999. The WDL approved the discharge of 14.2 million gallons per day (MGD), on a monthly average basis, of secondary treated municipal waste water and an unspecified volume of untreated sanitary/storm water from one combined sewer overflow (CSO) structure to the Androscoggin River, Class C in Lewiston, Maine.

On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (EPA) to administer the National Pollutant Discharge Elimination System (NPDES) program in Maine. From this point forward, the program will be referenced as the Maine Pollutant Discharge Elimination System (MEPDES) program. Upon issuance of a final MEPDES permit for the facility, NPDES permit #ME0101478, last issued for the facility by the EPA on September 23, 1999, will be superseded. Once superseded, all terms and conditions of the NPDES permit become null and void. The MEPDES permit number will be the same as the NPDES permit number.

**PERMIT SUMMARY**

LAWPCA has two physical outfalls which discharge to the river, namely Outfall 001 which discharges treated effluent from the treatment plant and Outfall 002 which is a combined sewer overflow (CSO) which discharges combined untreated sewage and stormwater from Structure B to the river. Internally the treatment facility has two waste streams to be monitored which discharge to the river through Outfall 001 and these will be referenced as follows:

**PERMIT SUMMARY (cont'd)**

- a. Outfall 001A – Outfall 001A was the monitoring point for secondary treated waste water in the previous permit and WDL and will not be utilized in this permit because 001A discharged combined secondary treated waste water and primary only treated waste water during wet weather events.
- b. Outfall 001B – Outfall 001B was established by the EPA for reporting acute and chronic test results but will not be utilized in this permit.
- c. Outfall 001C – This permit establishes Outfall 001C for secondary treated effluent discharged from the facility which shall be monitored for flow and sampled prior to the chlorine contact chamber for BOD<sub>5</sub>, BOD<sub>5</sub> % removal, TSS, and TSS % removal. Samples for pH, total residual chlorine, *E. coli* bacteria, settleable solids, WET testing and chemical specific testing shall be collected at the discharge end of the chlorine contact chamber. The effluent shall be sampled once ~~per year~~ **Deleted: in five years** for zinc.

- ~~\*d.~~ Outfall 001D – This permit establishes Outfall 001~~\*D~~ for primary treated effluent discharged during secondary bypass conditions which shall be monitored for surface loading rate, flow, and number of days overflow occurs, and sampled prior to combining with the secondary treated effluent, which is prior to the point of chlorine injection, for BOD<sub>5</sub>, BOD<sub>5</sub> % removal, TSS, and TSS % removal. Samples for pH, total residual chlorine and *E. coli* bacteria shall be collected at the discharge end of the chlorine contact chamber. **Deleted: c.**  
**Deleted: c**

This permitting action carries forward the following limitations and monitoring requirements from the previous licensing action dated 7/11/95:

- a. The monthly average flow of 14.2 MGD.
- b. The monthly average and weekly average mass and concentration limits and daily maximum concentration limits for biochemical oxygen demand (BOD<sub>5</sub>) and total suspended solids (TSS).
- c. The daily maximum limit of 0.3 ml/L for settleable solids.
- d. The monthly average and daily maximum limits for *E. coli* bacteria.
- e. Seasonal limits and monitoring requirements for *E. coli* bacteria and total residual chlorine.
- f. Annual whole effluent toxicity (WET) and chemical specific testing.

This permitting action is different from the previous licensing action in that:

- a. Daily maximum mass limits for BOD<sub>5</sub> and TSS have been eliminated in this permit.
- b. A monthly average percent removal of 85% for BOD<sub>5</sub> and TSS has been established for the secondary treated waste water, Outfall 001C.

**PERMIT SUMMARY (cont'd)**

- c. The pH range limit of 6.0 –8.5 standard units (SU) has been revised to 6.0-9.0 SU.
- d. Daily maximum mass and concentration limits for zinc have been established.
- e. The weekly average limit of 0.1 ml/L for settleable solids has been eliminated from the permit.
- f. New Special Conditions (E, F, N and O) have been established in the permit to be consistent with the requirements of the MEPDES program.
- g. New technology based monthly average and water quality based daily maximum concentration limitations for total residual chlorine (TRC) have been established for Outfall #001C.
- h. Discharge monitoring requirements for flow, BOD, BOD % removal, TSS, and TSS % removal, have been established for Outfall 001D which is the discharge of primary treated waste water. Also, discharge limitations and monitoring requirements for TRC, pH and *E. coli* bacteria have been established for Outfall 001D.
- i. The facility was previously authorized to receive and treat 15,000 gallons per day (GPD) of septage. This permit allows the facility to receive and treat up to 40,000 GPD of septage.

## CONCLUSIONS

Based on the findings in the attached Fact Sheet dated October 17, 2002 and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

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

**ACTION**

THEREFORE, the Department APPROVES the above noted application of the LEWISTON-AUBURN WATER POLLUTION CONTROL AUTHORITY, to discharge secondary and primary treated waste waters from a publicly owned treatment works and untreated combined sewer overflows to the Androscoggin River, Class C, 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 January 16, 2001, copy attached.
2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
3. The term of this permit is five (5) years from the date of signature.

DONE AND DATED AT AUGUSTA, MAINE, THIS 31st DAY OF December, 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
MARTHA KIRKPATRICK, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: \_\_\_\_\_ July 26, 2000 \_\_\_\_\_.

Date of application acceptance: \_\_\_\_\_ July 26, 2000 \_\_\_\_\_.

Date filed with Board of Environmental Protection \_\_\_\_\_

This order prepared by Charles Brown, BUREAU OF LAND AND WATER QUALITY  
W06825tf 12/31/02

**SPECIAL CONDITIONS**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

**1a. OUTFALL 001C** - During the period beginning the effective date of the permit and lasting through per permittee is authorized to discharge **secondary treated waste waters** from **Outfall 001C** to the Andros Class B. The discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations						Me F as	
	Monthly Average lbs/day	Weekly Average lbs/day	Daily Maximum lbs/day	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified		
Flow (through secondary clarifiers) <small>[50050]</small>	---	---	---	14.2 MGD <small>[03]</small>	---	Report (MGD)	C	
Biochemical Oxygen Demand (BODs) <sup>(1)</sup> <small>[00310]</small>	3,553 lbs/day <small>[26]</small>	5,329 lbs/day <small>[26]</small>	Report lbs/day <small>[26]</small>	30 mg/L <small>[19]</small>	45 mg/L <small>[19]</small>	50 mg/L <small>[19]</small>		
Total Suspended Solids (TSS) <sup>(1)</sup> <small>[00530]</small>	3,553 lbs/day <small>[26]</small>	5,329 lbs/day <small>[26]</small>	Report lbs/day <small>[26]</small>	30 mg/L <small>[19]</small>	45 mg/L <small>[19]</small>	50 mg/L <small>[19]</small>		
Settleable Solids <small>[00545]</small>	---	---	---	---	---	0.3 ml/L <small>[25]</small>		
<i>E. coli</i> . Bacteria <sup>(2,3)</sup> <small>[31616]</small>	---	---	---	142 colonies /100 ml <sup>(4)</sup> <small>[13]</small>	---	949 colonies /100 ml <small>[13]</small>		
Total Residual Chlorine <sup>(2,3,5,6)</sup> (TRC) <small>[50060]</small>	---	---	---	---	---	0.84 mg/L <small>[19]</small>		
Total Residual Chlorine <sup>(2,3,5,6)</sup> (TRC) <small>[50060]</small>	---	---	---	0.1 mg/L <small>[19]</small>	---	0.24 mg/L <small>[19]</small>		
pH <sup>(3)</sup> (Std. Units) <small>[00400]</small>	---	---	---	---	---	6.0-9.0 <small>[12]</small>		
Zinc (Total) <small>[01092]</small>	---	---	45.3 lbs/day <small>[26]</small>	---	---	574 ug/L <small>[28]</small>		

The italicized numeric values bracketed in the table above and in text on subsequent pages are code numbers that Depa code the monthly Discharge Monitoring Reports.

**SPECIAL CONDITIONS**

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

**1b. OUTFALL 001C - SURVEILLANCE LEVEL TESTING – Beginning effective date of this permit a months prior to the expiration date of this permit.**

Effluent Characteristic	Discharge Limitations						M
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Meas Fre
<u>Whole Effluent Toxicity (WET)<sup>(7)</sup> A-NOEL</u>							
<i>Ceriodaphnia dubia</i> [TDA3B]	---	---	---	---	---	Report % [23]	1/Ye
<i>Pimephales promelas</i> [TDA6C]	---	---	---	---	---	Report % [23]	1/Ye
<u>C-NOEL</u>							
<i>Ceriodaphnia dubia</i> [TBP3B]	---	---	---	---	---	Report % [23]	1/Ye
<i>Pimephales promelas</i> [TBP6C]	---	---	---	---	---	Report % [23]	1/Ye
Priority Pollutants <sup>(8)</sup>	---	---	---	---	---	Report ug/L	1/
[50008]						[28]	/

The italicized numeric values bracketed in the table above and in text on subsequent pages are code numbers that Depa code the monthly Discharge Monitoring Reports.

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

**1c. OUTFALL 001C- During SCREENING LEVEL TESTING – Beginning twelve months prior to the ex**

Effluent Characteristic	Discharge Limitations						M F	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
Whole Effluent Toxicity (WET) <sup>(7)</sup>								
<u>A-NOEL</u>								
<i>Ceriodaphnia dubia</i> [TDA3B]	---	---	---	---	---	Report % [23]	1/Q	
<i>Salvelinus fontinalis</i> [TDA6F]	---	---	---	---	---	Report % [23]	2/	
<i>Pimephales promelas</i> [TDA6C]	---	---	---	---	---	Report % [23]	2/	
<u>C-NOEL</u>								
<i>Ceriodaphnia dubia</i> [TBP3B]	---	---	---	---	---	Report % [23]	1/Q	
<i>Salvelinus fontinalis</i> [TBP6F]	---	---	---	---	---	Report % [23]	2/	
<i>Pimephales promelas</i> [TBP6C]	---	---	---	---	---	Report % [23]	2/	
Priority Pollutants <sup>(8)</sup>	---	---	---	---	---	Report ug/L	1/Q	
[50008]						[28]		

The italicized numeric values bracketed in the table above and in text on subsequent pages are code numbers that Depart code the monthly Discharge Monitoring Reports.

**C. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)**

2. **OUTFALL 001D** - Beginning the effective date of the permit and lasting through permit expiration, the p authorized to discharge **primary treated waste waters from Outfall 001D** prior to being combined with waste waters, **during the period the influent flow to the waste water treatment facility exceeds an ins 17,361 GPM<sup>(9)</sup> (25 MGD). When the facility can treat flows greater than an instantaneous flow of 17 (25 MGD) and meet its license limits and conditions, the permittee is expected to do so without byp clarifiers.** Such discharges may only occur in response to wet weather events or snowmelt and in accorda approved Wet Weather Flow Management Plan, and shall be limited and monitored as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requ
	Monthly Average As specified	Daily Maximum as specified	Measurement Frequency as specified
Flow (through primary clarifiers) <i>[82220]</i>	Report Total Flow MG/Mo <sup>(10)</sup> <i>[80]</i>	Report MGD <i>[03]</i>	Continuous <i>[CN]</i>
Surface loading Rate <i>[50997]</i>	---	Report (gpd/sf) <sup>(11)</sup> <i>[07]</i>	1/Discharge Day <i>[01/DD]</i>
Overflow Use, Occurrences <i>[74062]</i>	Report (# of days) <i>[93]</i>	---	1/Discharge Day <i>[01/DD]</i>
Biochemical Oxygen Demand (BOD <sub>5</sub> ) <i>[00310]</i>	Report (mg/L) <i>[19]</i>	Report (mg/L) <i>[19]</i>	1/Discharge Day <i>[01/DD]</i>
BOD <sub>5</sub> % Removal <sup>(12)</sup> <i>[81010]</i>	Report (%) <i>[23]</i>	---	1/Discharge Day <i>[01/DD]</i>
Total Suspended Solids (TSS) <i>[00530]</i>	Report (mg/L) <i>[19]</i>	Report (mg/L) <i>[19]</i>	1/Discharge Day <i>[01/DD]</i>
TSS % Removal <sup>(12)</sup> <i>[81011]</i>	Report (%) <i>[23]</i>	---	1/Discharge Day <i>[01/DD]</i>
<i>E. coli</i> Bacteria <sup>(2,3)</sup> <i>[31616]</i>	142 colonies/100 ml <sup>(4)</sup> <i>[13]</i>	949 colonies /100 ml <i>[13]</i>	1/Discharge Day <i>[01/DD]</i>
Total Residual Chlorine <sup>(2,3,5,6)</sup> (TRC) <i>[50060]</i>	---	0.84 mg/L <i>[19]</i>	2/Discharge Day <sup>(13)</sup> <i>[02/01]</i>
Total Residual Chlorine <sup>(2,3,5,6)</sup> (TRC) <i>[50060]</i>	0.1 mg/L <i>[19]</i>	0.24 mg/L <i>[19]</i>	2/Discharge Day <sup>(13)</sup> <i>[02/01]</i>
pH <sup>(3)</sup> (Std. Units) <i>[00400]</i>	---	6.0-9.0 <i>[12]</i>	1/Discharge Day <i>[01/DD]</i>

The italicized numeric values bracketed in the table above and in text on subsequent pages are code numbers tha personnel utilize to code the monthly Discharge Monitoring Reports.

## SPECIAL CONDITIONS

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

#### Sampling:

Sampling and analysis must be conducted in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136 or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.

#### Sampling Locations:

**Outfall 001C - Effluent receiving secondary treatment** shall be sampled prior to the point of chlorine injection and prior to combining with the primary clarifier effluent for BOD<sub>5</sub>, BOD<sub>5</sub> % removal, TSS, and TSS % removal, WET testing and chemical specific testing. Samples for pH, total residual chlorine, *E. coli* bacteria, settleable solids, shall be collected at the discharge end of the chlorine contact chamber.

**Outfall 001D - Effluent receiving primary treatment only (during secondary bypass)** shall be sampled prior to combining with the secondary treated effluent for BOD<sub>5</sub>, BOD<sub>5</sub> % removal, TSS, and TSS % removal. Samples for pH, total residual chlorine and *E. coli* bacteria shall be collected at the discharge end of the chlorine contact chamber.

**Influent Sampling** – Influent sampling for BOD<sub>5</sub> and TSS shall be sampled at the Lewiston and Auburn Parshall flumes prior to septage addition and prior to the bar racks.

**Change of Sample Location** – Any change in sampling location(s) must be reviewed and approved by the Department in writing.

#### Footnotes:

1. **% removal** – For Outfall 001C, the treatment facility shall maintain a monthly average minimum of 85 percent removal of both BOD<sub>5</sub> and TSS. The percent removal is calculated by subtracting the monthly average effluent concentration value from the monthly average influent concentration value and dividing this difference by the monthly average influent concentration value and then multiplying this result by 100. The percent removal for BOD<sub>5</sub> and/or TSS shall be waived when the monthly average influent concentration is less than 200 mg/L for that parameter. Influent and effluent values collected during bypass conditions shall not be used in calculating the BOD<sub>5</sub> and TSS percent removal for Outfall 001C. The permittee is not required to report BOD<sub>5</sub> and TSS % removal on the discharge monitoring report (DMR) form, but is required to calculate the BOD<sub>5</sub> and TSS % removal and report the results on the Department 49 form.

## SPECIAL CONDITIONS

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

#### Footnotes:

2. ***E. coli* bacteria and TRC** – *E. coli* bacteria and TRC limits and monitoring requirements are seasonal and apply between May 15<sup>th</sup> and September 30<sup>th</sup> of each year. The Department reserves the right to require year-round disinfection to protect the health, safety and welfare of the public.
3. **When bypassing secondary treatment** for greater than 1 hour or intermittently for greater than 2 hours per 24 hour period, the permittee shall conduct monitoring for *E. coli* bacteria, TRC and pH during bypass conditions, except monitoring for *E. coli* bacteria, TRC and pH is not required during night hours when the treatment facility is not normally staffed. During bypass conditions, monitoring of *E. coli* bacteria, TRC and pH is required for 001D and is suspended for Outfall 001C. On days when both bypass and non-bypass conditions occur, the permittee shall make every effort to collect separate samples that are representative of both conditions. All monitoring for *E. coli* bacteria, TRC and pH shall be conducted after the chlorine contact chamber.
4. ***E. coli* bacteria monthly average** – This limitation is a geometric mean value.
5. **TRC** – TRC shall be tested using Amperometric Titration or to DPD Spectrophotometric Method. The EPA approved methods are found in Standard Methods for the Manual of Methods of Analysis of Water and Wastes, Method 4500-CL-E and Method 4500-CL-G or USEPA Manual of Methods of Analysis of Water and Wastes.
6. **TRC** – The TRC limit shall be 0.84 mg/L as a daily maximum with no monthly average limit until November 30, 2004 or upon completion of the dechlorination facilities whichever comes first. Upon completion of the dechlorination facilities or November 30, 2004 whichever comes first, the TRC limit shall be 0.1 mg/L as a monthly average and 0.24 mg/L as a daily maximum.
7. **Whole Effluent Toxicity Tests** – Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions set at levels to bracket the acute and chronic dilution factors of 7.8 % and 1.11 % respectively), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points.

**Beginning the effective date this permit and lasting through twelve months prior to the expiration of the permit**, the permittee shall initiate surveillance level WET testing at a frequency of once per year (any calendar quarter) on the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*). Results shall be reported within 30 days of receipt from the laboratory.

## SPECIAL CONDITIONS

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

#### Footnotes:

**Beginning twelve months prior to the expiration date of the permit**, the permittee shall initiate screening level WET tests at a frequency of four per year (four consecutive calendar quarters). Testing shall be conducted on the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*) in two of the four calendar quarters and conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*) in the remaining two of the four calendar quarters. **Testing for the brook trout (*Salvelinus fontinalis*) shall be conducted as specified in Attachment A. Results shall be reported within 30 days of receipt from the laboratory in the format as specified in Attachment B.**

**Toxicity tests must be conducted by an experienced laboratory approved by the Department.** The laboratory must follow procedures as described in the following U.S.E.P.A. methods manuals.

- a. Lewis, P.A. et al., Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, Third Edition, July 1994 EPA/600/4-91/002.
- b. Weber, C.I. et al., Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fourth Edition, August 1993 EPA/600/4-90/027F.

**The permittee is also required to analyze the effluent for the parameters specified in the analytic chemistry on the form in Attachment C of this permit each and every time a WET test is performed.**

8. **Priority Pollutants** – Priority Pollutants (chemical specific testing under Chapter 530.5) are those listed by the USEPA pursuant to Section 307(a) of the Clean Water Act and published at 40 CFR Part 122, Appendix D, Tables II and III.

**Beginning the effective date of this permit and lasting through twelve months prior to the expiration of the permit**, surveillance level chemical specific testing shall be conducted at a frequency of once per year (any calendar quarter). **Beginning twelve months prior to the expiration date of the permit**, screening level chemical specific testing shall be conducted at a frequency of four per year (four consecutive calendar quarters). Chemical specific testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, where applicable. Chemical specific 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. Results shall be reported within 30 days of receipt from the laboratory. For the purposes of DMR reporting, enter a “0” for no testing done this monitoring period or “1” for yes, testing done this monitoring period.

## SPECIAL CONDITIONS

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

#### Footnotes:

All mercury sampling shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry.

9. **17,361 GPM (25 MGD)** – The secondary bypass shall not be initiated at an instantaneous flow less than 17,361 GPM (25 MGD) and **at no time** shall flow be bypassed around the secondary system at less than 22 MGD or at flows as specified in the permittee's annual revised Wet Weather Flow Management Plan and approved by the Department which may be different than the 25 MGD and/or the 22 MGD. See Special Condition "N. Wet Weather Flow Management Plan".
10. **MG/Mo** – Million gallons per month.
11. **gpd/sf** – Gallons per day per square foot.
12. **Primary clarifier BOD<sub>5</sub> & TSS % removal during secondary bypass** – The permittee shall analyze the treatment plant influent concentration and the primary clarifier effluent concentration for BOD<sub>5</sub> and TSS during the discharge of primary treated waste waters from Outfall 001D and report the percent (%) removal on the monthly Discharge Monitoring Report (DMR). As an attachment to the DMR, the permittee, until further notified by the Department, shall report the individual BOD<sub>5</sub> and TSS test results used to calculate the percent removal rates reported.
13. **2/Discharge Day** – 2/Day (code 02/01) will be printed on the DMR as the permit compliance system (PCS) does not have a code for 2/Discharge Day. The Permittee shall conduct sampling at the rate of 2/Discharge Day.

### 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 by 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 by 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 by the classification of the receiving waters.

## **SPECIAL CONDITIONS**

### **B. NARRATIVE EFFLUENT LIMITATIONS (cont'd)**

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. DISINFECTION**

If chlorination is used as a means of disinfection, an approved chlorine contact tank providing the proper detention time consistent with good engineering practice must be utilized, followed by a dechlorination system if the Total Residual Chlorine (TRC) limit cannot be met by dissipation and chemical reaction in the detention tank. The total residual chlorine in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. The dose of chlorine applied shall be sufficient to leave a TRC concentration that will effectively reduce bacteria to levels below those specified in Special Condition A, "*Effluent Limitations and Monitoring Requirements*", above.

### **D. TREATMENT PLANT OPERATOR**

The waste water treatment facility must be operated by a person holding a **Grade V** certificate pursuant to Title 32 M.R.S.A., Section 4171 et Seq. All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of a contract operator.

### **E. UNAUTHORIZED DISCHARGES**

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the treatment plant Outfall 001 and one (1) combined sewer overflow (CSO) Outfall 002 listed in Special Condition M of this permit. Discharges of waste water from any other point sources are not authorized under this permit, but shall be reported in accordance with Standards Condition B(5)(Bypass) of this permit. Outfalls 001C and 001D are administrative Outfalls and discharge through Outfall 001.

### **F. NOTIFICATION REQUIREMENT**

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

1. Any introduction of pollutants into the waste water collection and treatment system from an indirect discharger in a primary industrial category discharging process waste water; and
2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system.

## **SPECIAL CONDITIONS**

### **F. NOTIFICATION REQUIREMENT (cont'd)**

3. For the purposes of this section, adequate notice 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 change in the quality and quantity of the waste water to be discharged from the treatment system.

### **G. 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 postmarked on or before the thirteenth (13<sup>th</sup>) day of the month or delivered to a Department regional office such that the DMR's are received by the Department on or before the fifteenth (15<sup>th</sup>) day of the month following the completed reporting period. A signed copy of the Discharge Monitoring Report, a "Wet Weather Bypass Operations Report, DEP-49-CSO" (in electronic version preferably) and all other reports required herein shall be submitted to the following address:

Maine Department of Environmental Protection  
Southern Maine Regional Office  
312 Canco Road  
Portland, ME. 04103

A "Wet Weather Bypass Operations Report, DEP-49-CSO" form (in electronic version preferably) shall also be sent to:

CSO Coordinator  
Department of Environmental Protection  
Bureau of Land & Water Quality  
Division of Engineering, Compliance and Technical Assistance  
17 State House Station #17  
Augusta, Maine 04333 e-mail: CSO Coordinator@state.me.us

### **H. REOPENING OF PERMIT FOR MODIFICATIONS**

Upon evaluation of the tests results or monitoring requirements specified in 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 anytime 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

## SPECIAL CONDITIONS

### H. REOPENING OF PERMIT FOR MODIFICATIONS (cont'd)

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.

### I. EMERGENCY POWER

Pursuant to Standard Condition E(1)(a) of this permit, within thirty (30) days after the effective date of this permit, the permittee shall notify the Department in writing of facilities and plans to be used in the event the primary source of power to its waste water pumping and treatment \*facilities fails.

### J. OPERATION & 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.

### K. SCHEDULE OF COMPLIANCE

To ensure that the TRC measured in the receiving water is less than potentially toxic levels, the permittee must demonstrate that the effluent receives adequate mixing in the receiving water, or extend the outfall, or install a diffuser, or install dechlorination, and/or install suitable means of alternative disinfection.

**January 15, 2003** – Award a contract to a Department approved consultant to evaluate the TRC discharge in the receiving water and to provide plans for the means to ensure that the TRC concentration in the receiving water is less than toxic levels. [06499]

**March 31, 2003** – Submit dye study plans to the Department for review and approval for demonstrating the mixing of the effluent with the receiving water to the Department for review and approval. [53999]

## SPECIAL CONDITIONS

### K. SCHEDULE OF COMPLIANCE (cont'd)

**September 15, 2003** – Complete the Department approved dye study of the effluent dispersion characteristics in the receiving water. [88899]

**November 30, 2003** – Submit to the Department, for review and approval, a report of the effluent dispersion characteristics in the receiving water and a discussion of potential diffuser modifications including additional risers, relocation of the diffuser, etc. If the report determines that diffuser modifications including additional risers, relocation of the diffuser and/or other means to achieve adequate mixing will not reduce the TRC levels in the receiving water to below potential toxic levels, then the report will also include plans and an implementation schedule for the installation of dechlorination facilities or other alternative disinfection facilities. [030MS]

**May 4, 2004** – Submit plans and procurement documents to the Department for any required outfall modifications, dechlorination facilities and/or alternative disinfection facilities as determined necessary in the Department approved November 20, 2003 report. [01299]

**November 30, 2004** – Complete construction of any required outfall modifications, dechlorination facilities and/or alternative disinfection facilities and demonstrate compliance with the TRC limit in this permit. [04599]

### L. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to introduce to the treatment process or solids handling stream **a maximum of 40,000 gallons per day** of septage, subject to the following terms and conditions:

1. This approval is limited to methods and plans described in the application and supporting documents. Any variations are subject to review and approval prior to implementation.
2. At no time shall addition of septage cause or contribute to effluent quality violations. If such conditions do exist, the addition of septage to the waste stream shall be suspended until effluent quality can be maintained.
3. The permittee shall maintain records which shall include, as a minimum, the following by date: volume of septage received, source of the septage (name of municipality), the hauler transporting the septage, the dates and volume of septage added to the waste water treatment influent and test results.
4. Addition of septage shall not cause the treatment facility's design capacity to be exceeded. If, for any reason, the treatment facility becomes overloaded, the addition of septage to the waste stream shall be reduced or terminated in order to eliminate the overload condition.

**SPECIAL CONDITIONS**

**L. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY**

5. Septage known to be harmful to the treatment processes shall not be accepted. Wastes which contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation shall be refused.
6. Holding tank waste water shall not be recorded as septage and should be reported in the treatment facility's influent flow.
7. **During wet weather flows (secondary bypass conditions), no septage shall be added to the waste water treatment stream.**

**M. CONDITIONS FOR COMBINED SEWER OVERFLOW (CSO)**

Pursuant to Chapter 570 of Department Rules (Combined Sewer Overflow Abatement), the permittee is authorized to discharge from the following CSO (stormwater and sanitary wastewater) subject to the conditions and requirements herein.

1. The permittee is authorized to discharge combined storm water and sanitary waste water from the following CSO subject to the conditions and requirements contained herein:

<u>Outfall #</u>	<u>Location</u>	<u>Receiving Water &amp; Class</u>
002	Treatment Plant	Androscoggin River, Class C

2. Prohibited Discharges

- a) The discharge of dry weather flows is prohibited. All such discharges shall be reported to the Department in accordance with Standard Condition D (1) of this permit.
- b) No discharge shall occur as a result of mechanical failure, improper design or inadequate operation or maintenance.
- c) No discharges shall occur at flow rates below the maximum design capacity of the wastewater treatment facility, pumping stations or sewerage system. The pump station was designed for two influent pumps with a combined capacity of 32 MGD with a third pump on stand by. Paragraph C of the "Order" of the *Administrative Consent Agreement and Enforcement Order* issued by the Department on March 21, 2002, specifies that the present influent pumps shall be replaced or refurbished to provide at least the original facility design capacity of 32 MGD with only two pumps in operation.

LAWPCA is authorized to discharge combined sanitary and storm related water, through the CSO, in excess of what the facility can treat through secondary and primary treatment without violating permit limits for bypass conditions, but must treat an instantaneous

## SPECIAL CONDITIONS

### M. CONDITIONS FOR COMBINED SEWER OVERFLOW (CSO)

minimum of 25 MGD through secondary and a minimum of 32 MGD through secondary and primary before activating the CSO. In situations where LAWPCA can treat greater than an instantaneous minimum of 25 MGD through secondary and/or more than 32 MGD through secondary and primary without violating license limits for bypass conditions, LAWPCA shall do so before activating the CSO.

#### 3. Narrative Effluent Limitations

- a) The effluent shall not contain a visible oil sheen, settled substances, foam, or floating solids at any time that impair the characteristics and designated uses ascribed to the classification of the receiving waters.
- b) The effluent shall not contain materials in concentrations or combinations that are hazardous or toxic to aquatic life; or which would impair the usage designated by the classification of the receiving waters.
- c) The discharge shall not impart color, turbidity, toxicity, radioactivity or other properties that cause the receiving waters to be unsuitable for the designated uses and other characteristics ascribed to their class.
- d) Notwithstanding specific conditions of this permit, the effluent by itself or in combination with other discharges shall 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.

#### 4. CSO Master Plan (see Sections 2 & 3 of Chapter 570 Department Rules)

The permittee shall continue to work with the City of Lewiston and the Auburn Sewerage District to implement CSO control projects in accordance with the approved CSO Master Plan and implementation schedule for Lewiston and Auburn. The CSO Master Plan entitled, *Auburn Sewer District and City of Lewiston Clean Water Act Master Plan, dated October 2000* was approved on February 7, 2001. The abatement schedule may be amended from time to time based on mutual agreements between the permittee and the Department. The permittee must notify the Department in writing prior to any proposed changes to the implementation schedule.

#### 5. Nine Minimum Controls (NMC) (see Section 5 Chapter 570 of Department Rules)

The permittee shall implement and follow the Nine Minimum Control documentation. Work performed on the Nine Minimum Controls during the year shall be included in the annual CSO Progress Report (see below).

**SPECIAL CONDITIONS**

**M. CONDITIONS FOR COMBINED SEWER OVERFLOW (CSO) (cont'd)**

6. CSO Compliance Monitoring Program (see Section 6 Chapter 570 of Department Rules)

The permittee shall conduct flow monitoring according to an approved *Compliance Monitoring Program* on CSO 002, as part of the CSO Master Plan.

Annual flow volumes for CSO 002 shall be determined by actual flow monitoring.

Results shall be submitted annually as part of the annual *CSO Progress Report* (see below), and shall include annual precipitation, and actual CSO volumes. Any abnormalities during CSO monitoring shall also be reported. The results shall be reported to the Department on the "CSO Activity and Volumes" form (Attachment D of this permit) or similar format and submitted to the Department on diskette.

CSO control projects that have been completed shall be monitored for volume and frequency of overflow to determine the effectiveness of the project toward CSO abatement. This requirement shall not apply to those areas where complete separation has been completed and CSO outfalls have been eliminated.

7. Annual CSO Progress Reports (see Section 7 of Chapter 570 of Department Rules)

By March 1 of each year, the permittee shall submit *CSO Progress Reports* covering the previous calendar year (January 1 to December 31). The CSO Progress Report shall include, but is not necessarily limited to, the following topics as further described in Chapter 570: CSO abatement projects, schedule comparison, progress on inflow sources, costs, flow monitoring results, CSO activity and volumes, nine minimum controls update and new commercial or industrial flows. The CSO Progress Reports shall be completed on a standard form entitled "Annual CSO Progress Report", furnished by the Department, and submitted in electronic form, if possible, to the following address:

CSO Coordinator  
Department of Environmental Protection  
Bureau of Land and Water Quality  
Division of Engineering, Compliance and Technical Assistance  
17 State House Station  
Augusta, Maine 04333  
e-mail: [CSOCoordinator@state.me.us](mailto:CSOCoordinator@state.me.us)

**SPECIAL CONDITIONS**

**M. CONDITIONS FOR COMBINED SEWER OVERFLOW (CSO) (cont'd)**

8. Signs

If not already installed, the permittee shall install and maintain an identification sign at the CSO location as notification to the public that intermittent discharges of untreated sanitary wastewater occur. The sign must be located at or near the outfall and be easily readable by the public. The sign shall be a minimum of 12" x 18" in size with white lettering against a green background and shall contain the following information:

**LEWISTON AUBURN  
WATER POLLUTION CONTROL AUTHORITY  
WET WEATHER  
SEWAGE DISCHARGE  
CSO # AND NAME**

9. Definitions

For the purposes of this permit, the following terms are defined as follows:

- a. Combined Sewer Overflow - a discharge of excess waste water from a municipal or quasi-municipal sewerage system that conveys both sanitary wastes and storm water in a single pipe system and that is in direct response to a storm event or snowmelt.
- b. Dry Weather Flows - flow in a sewerage system that occurs as a result of non-storm events or are caused solely by ground water infiltration.
- c. Wet Weather Flows - flow in a sewerage system that occurs as a direct result of a storm event, or snowmelt in combination with dry weather flows.

**N. WET WEATHER FLOW MANAGEMENT PLAN**

The treatment facility staff shall develop and maintain a Wet Weather Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and/or storm related events.

**On or before June 1, 2003**, the permittee shall submit to the Department for review and approval, a new or revised Wet Weather Management Plan which conforms to Department guidelines for such plans. The revised plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength

## SPECIAL CONDITIONS

### N. WET WEATHER FLOW MANAGEMENT PLAN (cont'd)

wastes if applicable) and provide written operating and maintenance procedures during the events. [01299]

Once the Wet Weather Management Plan has been approved, **the permittee shall review their plan annually and record any necessary changes to keep the plan up to date.** [59499]

**Annually the permittee shall review wet weather flows and the treatment plants performance in treating the wet weather flows and if necessary revise minimum flows that will be treated in the treatment plant before bypass conditions are allowed.**

### O. INDUSTRIAL PRETREATMENT PROGRAM

1. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass-through the publicly owned treatment works (POTW) or interfere with the operation or performance of the works.
  - a. The permittee shall develop and enforce specific effluent limits (local limits) for Industrial User(s), and all other users, as appropriate, which together with appropriate changes in the POTW facilities or operation, are necessary to ensure continued compliance with the POTW's MEPDES permit or sludge use or disposal practices. Specific local limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.

**Within 180 days of the effective date of this permit**, the permittee shall prepare and submit a written technical evaluation to the Department analyzing the need to revise local limits. [90199] As part of this evaluation, the permittee shall assess how the POTW performs with respect to influent and effluent pollutants, water quality concerns, sludge quality, sludge processing concerns/inhibition, bio-monitoring results, activated sludge inhibition, worker health and safety and collection system concerns. In preparing this evaluation, the permittee shall complete the attached form (Attachment E of this permit) with the technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and conclusions should be based on actual plant data if available and should be included in the report. Should the evaluation reveal the need to revise local limits, the permittee shall complete the revisions within 120 days of notification by the Department and submit the revisions to the Department for approval. The permittee shall carry out the local limits revisions in accordance with EPA's Guidance Manual for the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program (December, 1987).

2. The permittee shall implement the Industrial Pretreatment Program (IPP) in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, and the General Pretreatment Regulations, found at

## SPECIAL CONDITIONS

### O. INDUSTRIAL PRETREATMENT PROGRAM ( cont'd)

40 CFR 403 and Department rule Chapter 528. At a minimum, the permittee must perform the following duties to properly implement the IPP:

- a. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users shall be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.
- b. Issue or renew all necessary industrial user control mechanisms within 90 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.
- c. Obtain appropriate remedies for noncompliance by an industrial user with any pretreatment standard and/or requirement.
- d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.
- e. The permittee shall provide the Department with an annual report describing the permittee's pretreatment program activities for the twelve month period ending 60 days prior to the due date in accordance with federal regulation found at 40 CFR 403.12(i) and Department rule Chapter 528(12)(I). The **annual report** shall be consistent with the format described in Attachment F of this permit **and shall be submitted no later than October 31 of each calendar year.** [50999]
- f. The permittee must obtain approval from The Department prior to making any significant changes to the industrial pretreatment program in accordance with federal regulation found at 40 CFR 403.18(c) and Department rule Chapter 528(18).
- g. The permittee must assure that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW. These standards are published in the federal regulations found at 40 CFR 405 et. seq.
- h. The permittee must modify its pretreatment program to conform to all changes in the federal regulations and State rules that pertain to the implementation and enforcement of the industrial pretreatment program. **Within 180 days of the effective date of this permit**, the permittee must provide the Department in writing, of proposed changes (if applicable) to the permittee's pretreatment program deemed necessary to assure conformity with current federal regulations and State rules. [90299]

**SPECIAL CONDITIONS**

**O. INDUSTRIAL PRETREATMENT PROGRAM (cont'd)**

At a minimum, the permittee must address in its written submission the following areas:

- (1) Enforcement response plan;
- (2) Revised sewer use ordinances; and
- (3) Slug control evaluations.

The permittee will implement these proposed changes pending the Department's approval under federal regulation 40 CFR 403.18 and Department rule Chapter 528(18). This submission is separate and distinct from any local limits analysis submission described in section 1(a) above.

## ATTACHMENT “A”

### **SALMONID SURVIVAL (ACUTE) AND GROWTH (CHRONIC) TESTS**

The salmonid survival and growth tests shall follow the procedures for the fathead minnow larval survival and growth tests detailed in EPA’s freshwater acute and chronic methods manuals (see references) with the following modifications:

Species -	Brook trout ( <i>Salvelinus fontinalis</i> ), or other salmonid approved by the Department.
Age and size -	Less than 12 months old, largest not more than 150% that of the smallest.
Loading Rate -	<0.5 g/L/d
Feeding Rate -	5% of body weight 3 times daily (15%/d)
Temperature -	15° + 1°C.
Dissolved Oxygen -	>6.5 mg/L (aeration if needed with large bubbles (>1 mm diam) at a rate of <100/min.
Dilution Water -	Receiving water upstream of discharge or other ambient water approved by the Department.
Dilution Series -	A minimum of 5 effluent concentrations (including the instream waste concentration at 7Q10 river flow and monthly average discharge flow limit for chronic test, and 2Q10 river flow and daily maximum discharge flow for acute test); a receiving water control; and control of known suitable water quality.
Exception -	Where permit limits exceed 100% (LC50>100%,NOEC>100%, etc.) an undiluted (100%) effluent concentration may be used instead of the 5 dilutions.
Duration -	Acute = 48 hours; Chronic = 10 days minimum.
Test acceptability -	Acute – minimum of 90% survival in 2 days. Chronic – minimum of 80% survival in 10 days; minimum growth 20 mg/gm/d dry weight in controls, (individual fish weighed, dried at 100°C to constant weight and weighed to 3 significant figures).

#### References:

- a. Lewis, P.A. et al., Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, Third Edition, July 1994 EPA/600/4-91/002.
- b. Weber, C.I. et al., Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fourth Edition, August 1993 EPA/600/4-90/027F.

**ATTACHMENT "D"**  
**MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**CSO ACTIVITY AND VOLUMES**

MUNICIPALITY OR DISTRICT				MEPDES / NPDES PERMIT #							
REPORTING YEAR				SIGNED BY:							
YEARLY TOTAL PRECIPITATION				DATE:							
		INCHES		FLOW DATA (GALLONS PER DAY) OR BLOCK ACTIVITY("1")							
CSO EVENT NO.	START DATE OF STORM	PRECIP. DATA		LOCATION:	LOCATION:	LOCATION:	LOCATION:	LOCATION:	LOCAT		
		TOTAL INCHES	MAX. HR. INCHES	NUMBER:	NUMBER:	NUMBER:	NUMBER:	NUMBER:	NUMBER:	NUMI	
1											
2											
3											
4											
5											
6											
7											
8											
9											
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23											
24											
25											
TOTALS											

Note 1: Flow data should be listed as gallons per day. Storms lasting more than one day should show total flow for each day.

Note 2: Block activity should be shown as a "1" if the block floated away.

Doc Num

## ATTACHMENT E

### RE-ASSESSMENT OF TECHNICALLY BASED INDUSTRIAL DISCHARGE LIMITS

Pursuant to federal regulation 40 CFR §122.21(j)(4) and Department rule Chapter 528, all Publicly Owned Treatment Works (POTWs) with approved Industrial Pretreatment Programs (IPPs) shall provide the Department with a written evaluation of the need to revise local industrial discharge limits under federal regulation 40 CFR §403.5(c)(1) and Department rule Chapter 528(6).

Below is a form designed by the U.S. Environmental Protection Agency (EPA - New England) to assist POTWs with approved IPPs in evaluating whether their existing Technically Based Local Limits (TBLLs) need to be recalculated. The form allows the permittee and Department to evaluate and compare pertinent information used in previous TBLLs calculations against present conditions at the POTW.

**Please read the directions below before filling out the attached form.**

#### ITEM I.

- \* In Column (1), list what your POTW's influent flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present influent flow rate. Your current flow rate should be calculated using the POTW's average daily flow rate from the previous 12 months.
- \* In Column (1) list what your POTW's SIU flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present SIU flow rate.
- \* In Column (1), list what dilution ratio and/or 7Q10 value was used in your previous NPDES permit. In Column (2), list what dilution ratio and/or 7Q10 value is presently being used in your new/reissued MEPDES permit.

The 7Q10 value is the lowest seven day average flow rate, in the river, over a ten year period. The 7Q10 value and/or dilution ratio used by the Department in your MEPDES permit can be found in your MEPDES permit "Fact Sheet."

- \* In Column (1), list the safety factor, if any, that was used when your existing TBLLs were calculated.
- \* In Column (1), note how your bio-solids were managed when your existing TBLLs were calculated. In Column (2), note how your POTW is presently disposing of its biosolids and how your POTW will be disposing of its biosolids in the future.

## **ITEM II.**

- \* List what your existing TBLLs are - as they appear in your current Sewer Use Ordinance (SUO).

## **ITEM III.**

- \* Identify how your existing TBLLs are allocated out to your industrial community. Some pollutants may be allocated differently than others, if so please explain.

## **ITEM IV.**

- \* Since your existing TBLLs were calculated, identify the following in detail:
  - (1) if your POTW has experienced any upsets, inhibition, interference or pass-through as a result of an industrial discharge.
  - (2) if your POTW is presently violating any of its current MEPDES permit limitations - include toxicity.

## **ITEM V.**

- \* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in pounds per day) received in the POTW's influent. Current sampling data is defined as data obtained over the last 24 month period.

All influent data collected and analyzed must be in accordance with federal regulation 40 CFR §136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace.

- \* Based on your existing TBLLs, as presented in Item II., list in Column (2) each Maximum Allowable Industrial Headworks Loading (MAIHL) value corresponding to each of the local limits derived from an applicable environmental criteria or standard, e.g. water quality, sludge, MEPDES, inhibition, etc. For each pollutant, the MAIHL equals the calculated Maximum Allowable Headwork Loading (MAHL) minus the POTW's domestic loading source(s). For more information, please see p.,3-28 in EPA's *Guidance Manual on the Development and Implementation of Local Limits Under the Pretreatment Program, 12/87.*

#### **ITEM VI.**

- \* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in micrograms per liter) present your POTW's effluent. Current sampling data is defined as data obtained during the last 24 month period.

All effluent data collected and analyzed must be in accordance with federal regulation 40 CFR §136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace.

- \* List in Column (2A) what the Water Quality Standards (WQS) were (in micrograms per liter) when your TBLLs were calculated, please note what hardness value was used at that time. Hardness should be expressed in milligram per liter of Calcium Carbonate.

List in Column (2B) the current WQSs or "Chronic Gold Book" values for each pollutant multiplied by the dilution ratio used in your new/reissued MEPDES permit. For example, with a dilution ratio of 25:1 at a hardness of 20 mg/l - Calcium Carbonate (copper's chronic WQS equals 2.99 ug/l) the chronic MEPDES permit limit for copper would equal 75 ug/l.

#### **ITEM VII.**

- \* In Column (1), list all pollutants (in micrograms per liter) limited in your new/reissued MEPDES permit. In Column (2), list all pollutants limited in your old/expired NPDES permit.

#### **ITEM VIII.**

- \* Using current sampling data, list in Column (1) the average and maximum amount of pollutants in your POTW's biosolids. Current data is defined as data obtained during the last 24 month period. Results are to be expressed as total dry weight.

All biosolids data collected and analyzed must be in accordance with federal 40 CFR §136.

In Column (2A), list current State and/or Federal sludge standards that your facility's biosolids must comply with. Also note how your POTW currently manages the disposal of its biosolids. If your POTW is planing on managing its biosolids differently, list in Column (2B) what your new biosolids criteria will be and method of disposal.

In general, please be sure the units reported are correct and all pertinent information is included in your evaluation. If you have any questions, please contact your pretreatment representative at the Maine Department of Environmental Protection, Bureau of Land & Water Quality, Division of Engineering, Compliance & Technical Assistance, State House Station #17, Augusta, ME. 04333. The telephone number is (207) 287-3901.

**REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS  
(TBLLs)**

POTW Name & Address : \_\_\_\_\_

MEPDES Permit # : \_\_\_\_\_

Date the Department approved current TBLLs : \_\_\_\_\_

Date the Department approved current Sewer Use Ordinance : \_\_\_\_\_

**ITEM I.**

In Column (1) list the conditions that existed when your current TBLLs were calculated. In Column (2), list current conditions or expected conditions at your POTW.

	<b>Column (1)</b>	<b>Column (2)</b>
	<u>EXISTING TBLLs</u>	<u>PRESENT CONDITIONS</u>
POTW Flow (MGD)	_____	_____
SIU Flow (MGD)	_____	_____
Dilution Ratio or 7Q10 from the MEPDES Permit	_____	_____
Safety Factor	_____	N/A
Biosolids Disposal Method(s)	_____	_____

**ITEM II.**

EXISTING TBLLs

<u>POLLUTANT</u>	<u>NUMERICAL LIMIT</u> (mg/l) or (lb/day)	<u>POLLUTANT</u>	<u>NUMERICAL LIMIT</u> (mg/l) or (lb/day)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**ITEM III.**

Note how your existing TBLLs, listed in Item II., are allocated to your Significant Industrial Users (SIUs), i.e. uniform concentration, contributory flow, mass proportioning, other. Please specify by circling.

**ITEM IV.**

Has your POTW experienced any upsets, inhibition, interference or pass-through from industrial sources since your existing TBLLs were calculated?

If yes, explain. \_\_\_\_\_  
\_\_\_\_\_

Has your POTW violated any of its MEPDES permit limits and/or toxicity test requirements?

If yes, explain. \_\_\_\_\_  
\_\_\_\_\_

**ITEM V.**

Using current POTW influent sampling data fill in Column (1). In Column (2), list your Maximum Allowable Industrial Headwork Loading (MAIHL) values used to derive your TBLLs listed in Item II. In addition, please note the environmental criteria for which each MAIHL value was established, i.e. water quality, sludge, MEPDES etc.

<u>Pollutant</u>	<b>Column (1)</b>		<b>Column (2)</b>	<u>Criteria</u>
	<u>Influent Data Analyses</u>		<u>MAIHL Values</u>	
	<u>Maximum</u> (lb/day)	<u>Average</u> (lb/day)	(lb/day)	
Arsenic	_____	_____	_____	_____
Cadmium	_____	_____	_____	_____
Chromium	_____	_____	_____	_____
Copper	_____	_____	_____	_____
Cyanide	_____	_____	_____	_____
Lead	_____	_____	_____	_____
Mercury	_____	_____	_____	_____
Nickel	_____	_____	_____	_____
Silver	_____	_____	_____	_____
Zinc	_____	_____	_____	_____
Other (List)	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**ITEM VI.**

Using current POTW effluent sampling data, fill in Column (1). In Column (2A) list what the Water Quality Standards (Gold Book Criteria) were at the time your existing TBLLs were developed. List in Column (2B) current Gold Book values multiplied by the dilution ratio used in your new/reissued MEPDES permit.

	<b>Column (1)</b>		<b>Columns</b>	
	Effluent Data Analyses		<b>(2A)</b>	<b>(2B)</b>
	<u>Maximum</u>	<u>Average</u>	Water Quality Criteria (Gold Book) <u>From TBLLs</u>	<u>Today</u>
<b>Pollutant</b>	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Arsenic	_____	_____	_____	_____
Cadmium*	_____	_____	_____	_____
Chromium*	_____	_____	_____	_____
Copper*	_____	_____	_____	_____
Cyanide	_____	_____	_____	_____
Lead*	_____	_____	_____	_____
Mercury	_____	_____	_____	_____
Nickel*	_____	_____	_____	_____
Silver	_____	_____	_____	_____
Zinc*	_____	_____	_____	_____
Other (List)	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

\*Hardness Dependent (mg/l - CaCO3)

**ITEM VII.**

In Column (1), identify all pollutants limited in your new/reissued MEPDES permit. In Column (2), identify all pollutants that were limited in your old/expired NPDES permit.

<b>Column (1)</b> NEW PERMIT		<b>Column (2)</b> OLD PERMIT	
<u>Pollutants</u>	<u>Limitations</u> (ug/l)	<u>Pollutants</u>	<u>Limitations</u> (ug/l)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**ITEM VIII.**

Using current POTW biosolids data, fill in Column (1). In Column (2A), list the biosolids criteria that was used at the time your existing TBLLs were calculated. If your POTW is planing on managing its biosolids differently, list in Column (2B) what your new biosolids criteria would be and method of disposal.

<b>Pollutant</b>	<b>Columns</b>		
	<b>Column (1)</b>	<b>(2A)</b>	<b>(2B)</b>
	Biosolids Data Analyses <u>Average</u> (mg/kg)	Biosolids Criteria From TBLLs <u>(mg/kg)</u>	New <u>(mg/kg)</u>
Arsenic	_____	_____	_____
Cadmium	_____	_____	_____
Chromium	_____	_____	_____
Copper	_____	_____	_____
Cyanide	_____	_____	_____
Lead	_____	_____	_____
Mercury	_____	_____	_____
Nickel	_____	_____	_____
Silver	_____	_____	_____
Zinc	_____	_____	_____
Molybdenum	_____	_____	_____
Selenium	_____	_____	_____
Other (List)	_____	_____	_____
_____	_____	_____	_____

**ATTACHMENT F**  
**NPDES PERMIT REQUIREMENT**  
**FOR**  
**INDUSTRIAL PRETREATMENT ANNUAL REPORT**

1. A narrative description (paragraph) of program effectiveness including the following:

- present and proposed changes to the program
- Funding
- Staffing
- Ordinances
- Regulations
- Statutory authority
- Other

Our pretreatment program is very effective as indicated by the SIU compliance rate and the reduction in pollutant loading to the POTW.

The program is adequately funded and staffed to provide for annual training and completion of our regulatory responsibilities.

No changes have been made, or are proposed, to Town of Hartland's Sewer Use Ordinance. The SUO provides adequate statutory authority to enforce in Local, State and Federal courts.

2. The date of the latest adoption of Local Limits and a statement as to whether the municipality is under a State or Federal compliance schedule that includes steps to be taken to revise Local Limits.

If yes, Compliance Schedule; if no, schedule not needed.

\_\_\_\_\_ 's Local Limits were last adopted (by local authority) on \_\_\_\_\_ and \_\_\_\_\_ is under no State or Federal compliance schedule that includes steps to be taken to revise Local Limits.

3. A description of actions taken to reduce the incidence of violations by SIU's;

Example: Inspections – Notifications – Information/Education

4. A description of monitoring, sewer inspections and evaluations which were done during the past year to detect Interference and Pass Through, specifying parameters and frequencies;

Example: Evaluations/investigations as a result of Monitoring, Sewer Inspections, and Evaluations, Influent – Effluent results, Spills, Dumps, Toxicity, or Unusual events.

5. A detailed description of all Interference and Pass Through that occurred during the past year; [statement of:

Event, Parameter, Violation, Cause, IU, POTW action, IU action, Result (see NOV #)].

\_\_\_\_\_ experienced no events of Interference or Pass- Through in this reporting period. If "Yes" then describe.

6. A thorough description of all investigations into Interference and Pass-Through during the past year;

A paragraph: Violation, Problem, Steps to resolve, Result.

(same as #5 or describe investigations.)

7. An updated list of all industrial users by category (40 CFR 403.8(f)(2)(i), indicating compliance or non- compliance with the following:

- baseline monitoring reporting requirements for newly promulgated industries
- compliance status reporting requirements for newly promulgated industries
- periodic (semi-annual) monitoring reporting requirements - categorical standards, and
- local limits

Example:

SIU	New Promulgated	Cat Limits	Local Limits	Semi-annual Reports
	BMR/Compliance	Compliance	Compliance	Compliance
	(Y/N) (Y/N)	(Y/N)	(Y/N)	(Y/N)

8. A summary of compliance and enforcement activities during the preceding year including a:

- list of SIU's inspected by the POTW (dates, compliance status),
- list of SIU's sampled by the POTW (dates, compliance status),

Example:

SIU	Inspected	Sampled/self Sampled/POTW	Compliance Y/N
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- list of SIU's to which compliance schedules were issued,  
[SIU] - Violation - Compliance - Schedule  
N/A or schedule plus Progress Reporting Dates] \_\_\_\_\_

- summary list of NOV's written to SIU's by name [statement],
- summary list of AO's written to SIU's by name [statement],
- list of criminal and/or civil suits filed by SIU,[usually a simple statement]
- list of penalty amounts obtained (by SIU) [a statement].

9. NOTE: Some items in numbers 9 & 10 may be combined in a chart, or charts. Be sure that any charts are logical, not cluttered, and don't contain an unreasonable amount of information. Any violations should be shown separately, in summary, for each item.

List of violating industries required to be published in a local newspaper (40 CFR 403.8(f)(2)(vii). [Statement]

10. A summary of all pollutant analytical results for:

- Influent [Annual average – show violations]
- Effluent [Annual average – show violations]
- Sludge [Annual average– show violations]
- Toxicity/Bioassay [Annual Average – show violations]
  
- comparison of influent sampling results versus threshold inhibitory concentrations for the POTW's wastewater treatment system.
  
- comparison of effluent sampling results versus water quality standards, considering the permitted dilution factor of the POTW.

**NOTE:** The sampling program shall be as described below OR any similar sampling program described in the NPDES permit.

- At a minimum, annual sampling and analysis of/ the influent and effluent of the POTW's wastewater treatment plant shall be conducted on the following pollutants:

Example:

	Influent	Inhibition Effluent	AWC
			Acute Chronic
- Total Cadmium			
- Total Chromium			
- Total Copper			
- Total Lead			
- Total Mercury (Methods 1669 & 1631)			
- Total Nickel			
- Total Silver			
- Total Zinc			
- Total Cyanide			
- Total Arsenic			

The sampling program shall consist of one 24-hour flow-proportioned composite that is representative of the flow received by the POTW. The composite shall consist of accurately flow-proportioned grab samples taken over a discharge day if the samples are collected manually, or shall consist of a minimum of 48 accurately flow-proportioned samples if an automatic sampler is used. Sampling and preservation shall be according to 40 CFR part 136.