MEO100307

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANGUS S. KING, JR.
GOVERNOR

MARTHA KIRKPATRICK
COMMISSIONER

January 28, 2000

Mr. David Chittim
Town Engineer
Town of Lisbon
24 Main Street
Lisbon Falls, Maine 04252

RE: Maine Waste Discharge License Application #W002725-5L-F-R

Dear Mr. Chittim:

Enclosed please find a **final** copy of your Waste Discharge License which was approved by the Department of Environmental Protection. Please read the license and its attached conditions carefully. You must follow the conditions in 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 fact sheet.

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

Sincerely,

Gregg Wood
Division of Water Resource Regulation
Bureau of Land and Water Quality

Enc.

cc: David Coffin, DEP
Doug Corb, EPA

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

ANGUS S. KING, JR.
GOVERNOR

DEPARTMENT ORDER

IN THE MATTER OF

TOWN OF LISBON	)	PROTECTION AND IMPROVEMENT
LISBON, ANDROSCOGGIN COUNTY, MAINE	)	OF WATERS
PUBLICLY OWNED TREATMENT WORKS	)	
#W002725-5L-F-R	)	WASTE DISCHARGE LICENSE
APPROVAL	)	RENEWAL

Pursuant to the provisions of 38 M.R.S.A., Section 414-A et seq., the Department of Environmental Protection has considered the application of the TOWN OF LISBON (Town), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

a. Application: The applicant has applied for renewal of Department Waste Discharge License (WDL) #W002725-46-C-R, dated September 18, 1995, which approved the discharge of 2.025 million gallons per day (MGD) of treated sanitary waste water from a publicly owned treatment works facility to the Androscoggin River, Class C, in Lisbon, Maine.

b. History: The most recent permitting/licensing actions include the following:

September 18, 1995 - The Department issued WDL renewal #W002725-46-C-R with a four year license term.

September 25, 1995 - The U.S. Environmental Protection Agency (EPA) issued a renewal of National Pollutant Discharge Elimination System (NPDES) permit #ME0100307.

April 21, 1999 - The Town submitted an updated septage management plan pursuant to Department Regulation 06-096 CMR Chapter 555., *Standards For The Addition of Septage To Waste Water Treatment Facilities.*

June 16, 1999 - The Town submitted an application to the Department to renew the WDL for their waste water treatment facility.

October 5, 1999 - The EPA issued a renewal of NPDES #ME0100307.

c. Source Description: Waste waters treated at the municipal treatment facility are generated from commercial and residential entities within the Town of Lisbon. The licensee has indicated in their renewal application that no industry contributes more than 10% of the volume of waste water received by the treatment facility.

The licensee has 35 mile long sanitary collection system that is separated from the storm water system and has 11 pump stations in the system. Special Condition I of this licensing action does recognize combined sewer overflow (CSO) points associated with 6 of the 11 pump stations due to excessive inflow and infiltration (I&I) sources.

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1. APPLICATION SUMMARY (cont'd)

The previous waste discharge license renewal granted authorization for the Town to receive up to a daily maximum of 5,000 gallons of septage from local septage haulers. See Special Condition G of this licensing action. The 4/21/99 updated septage management has been deemed by the Department to be in compliance with Department Regulation 06-096 CMR Chapter 555.

d. Waste Water Treatment: The facility provides a secondary level of treatment via a conventional activated sludge process followed by disinfection. Treatment components of the waste water treatment facility include a bar screen, flow measurement via an ultrasonic measuring device, a grit chamber, two aeration basins with four mechanical aerators, two circular secondary clarifiers, and a chlorine contact chamber for seasonal disinfection using sodium hypo-chlorite. The effluent is discharged to the Androscoggin River via a 16 inch outfall pipe.

2. CONDITIONS OF LICENSES:

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment, be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420, requires the regulation of toxic substances at the levels set forth for Federal Water Quality Criteria as published by the U.S. Environmental Protection Agency pursuant to the Clean Water Act.

3. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS:

Dilution Factors: The Department has made the determined that the dilution factors shall be calculated in accordance with freshwater protocols established in Department Regulation Chapter 530.5, *Surface Water Toxics Control Program*, October 1994. The dilution factors for the treated waste waters discharged from the Lisbon waste water treatment facility can be calculated as follows:

Acute: 1Q10 = 1,036 cfs $\Rightarrow \frac{(1{,}036 \text{ cfs})(0.6464) + 2.025 \text{ MGD}}{2.025 \text{ MGD}} = 332:1$

Chronic: 7Q10 = 1,994 cfs $\Rightarrow \frac{(1{,}994 \text{ cfs})(0.6464) + 2.025 \text{ MGD}}{2.025 \text{ MGD}} = 638:1$

Harmonic Mean = 4,332 cfs $\Rightarrow \frac{(4{,}332 \text{ cfs})(0.6464)) + 2.025 \text{ MGD}}{2.025 \text{ MGD}} = 1{,}384:1$

3. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS: (cont'd)

Flow: The monthly average flow limitation of 2.025 MGD in the previous licensing action is being carried forward in this licensing action and is considered representative of the monthly average design flow for the facility.

BOD5 & TSS: The monthly average biochemical oxygen demand (BOD5) and total suspended solids (TSS) concentration limits are based on secondary treatment requirements of the Clean Water Act §301(b)(1)(B), as defined in 40 CFR 133.102. Limits for maximum daily BOD5 and TSS concentration limits are based on Maine Board of Environmental Protection policy regarding the certification of NPDES permits. All BOD5 and TSS mass limitations were calculated utilizing the monthly average flow limitation of 2.025 MGD and the appropriate concentration limitations.

Settleable Solids - The previous licensing actions established a weekly average concentration (ml/L) reporting requirement. The Department has recently reconsidered the limitations for settleable solids and has concluded that the weekly average concentration reporting requirement is unnecessary and that a daily maximum concentration limit of 0.3 ml/L is appropriate and represents best practicable treatment (BPT). Therefore, this licensing action is removing the weekly average concentration reporting requirement from the license and establishing a daily maximum concentration limit.

Escherichia coli: The previous licensing action established monthly average and daily maximum *E. coli* bacteria limits of 64 colonies/100 ml and 427 colonies/100 ml respectively. The limits are being carried forward in this licensing action and are based on the State of Maine Water Classification Program criteria for Class B waters pursuant to Maine law, 38 M.R.S.A., §465.

Total Chlorine Residual: Limits on total residual chlorine are specified to ensure attainment of the in-stream water quality criteria for levels of chlorine and that BPT technology is utilized to abate the discharge of chlorine. Licenses issued by this Department impose the more stringent of the calculated water quality based or BPT based limits. Water quality based thresholds for TRC may calculated as follows:

Acute (A) Criterion	Chronic (C) Criterion	A & C Dilution Factors	Calculated Acute Limit	Calculated Chronic Limit
19 ug/L	11 ug/L	332(A) & 638(C)	6.3 mg/L	7.0 mg/L

The Department has established a daily maximum BPT limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine based compounds. Being that the calculated water quality based limit of 6.3 mg/L is higher than the best practicable treatment limitation of 1.0 mg/L, the best practicable treatment is imposed.

3. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS: (cont'd)

pH - This licensing action carries forward the pH range limitation of 6.0 - 8.5 standard units. Limits for pH are based on Maine Board of Environmental Protection Policy regarding the certification of NPDES permits and are considered best practicable treatment limitations.

Whole Effluent Toxicity (WET) and Chemical Specific Testing - The Department issued a Fact Sheet on 2/1/95 which outlined the Town's WET and chemical specific testing requirements under the Chapter 530.5 regulation. The regulation places the Town's facility in the low frequency category for WET testing as the facility does not meet the criteria for the high or medium frequency categories and in the high frequency testing category for chemical specific testing as the facility discharges more than 1.0 MGD As a point of clarification, the 2/1/95 Fact Sheet indicates that the Town was required to commence WET testing beginning 1/1/98 and chemical specific testing beginning the first calendar quarter of 1995.

The Department's database for WET and chemical specific test results for the Town indicates the facility has been conducting acute [LC50 and acute - no observed effect level (A-NOEL] WET testing for EPA since 1991, A-NOEL and C-NOEL (chronic - no observed effect level) since 1998, and chemical specific testing since the first calendar quarter of 1995. Department Regulation Chapter 530.5 and Protocol E(1) of a document entitled *Maine Department of Environmental Protection, Toxicity Program Implementation Protocols*, dated July 1998, states that statistical evaluations shall be periodically performed on the most recent 60 months of WET and chemical specific data for a given facility to determine if water quality based limitations must be included in the WDL for a facility.

A recent review of Town's data indicates that they have fulfilled the WET and chemical specific testing requirements to date. A statistical evaluation was performed on 12/21/99 for the applicable WET and chemical specific test results. See Attachments A of this license for the WET results evaluated and Attachment B for the chemical specific test results evaluated for the five year period 12/94 - 12/99. The evaluation was conducted in accordance with the statistical approach outlined in EPA's March *1991 Technical Support Document (TSD) for Water Quality Based Toxics Control*, Chapter 3.3.2 and Maine Department of Environmental Protection Guidance, July 1998, entitled *Toxicity Program Implementation Protocols*. The results of the WET evaluation indicates that the **discharge does not exceed or have a reasonable potential to cause or contribute to exceedences of acute or chronic numeric ambient water quality criteria (AWQC) for any of the WET species or chemical specific compounds tested.**

Maine Department of Environmental Protection Guidance entitled Toxicity Program Implementation Protocols, July 1998, protocol #F(9) establishes the criteria for reduced surveillance level testing for publicly owned treatment works. The protocol states that for facilities with all dilution factors greater than 20:1 and no reasonable potential or exceedences of AWQC over a full five year cycle may receive a reduction to one round of screening testing for the complete suite of chemical specific priority

3. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS: (cont'd)

pollutants and acute and chronic WET tests for all required species and that all screening tests must be completed in the screening year. The screening year begins one year prior to the expiration date of the license. In the Town of Lisbon's case, this license will expire in January 2005.

Protocol F(9) establishes the criteria to qualify for a reduction in testing. The Department has made the determination that the Town of Lisbon qualifies for the testing reduction and therefore has made a best professional judgment to grant the Town the reduction in both WET and chemical specific testing to a screening level of testing. **For WET testing that results in a frequency of 1/Year (any quarter of calendar year 2004) and for chemical specific testing results in a frequency of 4/Year beginning the first quarter of calendar year 2004.** No surveillance level (1/Year) of testing is required in the interim. In accordance with protocol F(9), the licensee must submit to the Department on an annual basis, a written statement evaluating its current status for each of the four conditions listed in Department regulation, Chapter 530.5(B)(7)(c)(iii). See Special Condition H of this license.

4. RECEIVING WATER QUALITY STANDARDS:

Maine law, 38 M.R.S.A., Section 467(A)(2) states that the Androscoggin main stem, from its confluence with the Ellis River to a line formed by the extension of the Bath-Brunswick boundary across Merrymeeting Bay in a northwesterly direction is classified as a Class C waterway. Maine law, 38 M.R.S.A., Section 465(4) contains the classification standards for Class C waterways.

5. RECEIVING WATER QUALITY CONDITIONS:

The 1996 State of Maine Water Quality Assessment (305b) Report published by the Department indicates that the 22.8 mile main stem of the Androscoggin River, from Great Falls in Lewiston to the dam in Brunswick, is meeting the standards of its classification with two exceptions: 1) Water quality sampling indicates that the upper 7 miles of this waterbody do not attain Class C bacteria standards. The cause of non-attainment is the discharge of untreated municipal waste water from CSO's in Auburn and Lewiston, 2) A fish consumption advisory has been issued for this riverine segment due to the presence of dioxin in fish tissues. Thus, this waterbody is not full attaining its designated use of fishing. The Department does not have any information which suggests that the discharge from the Town of Lisbon is causing or contributing to the fish consumption advisory.

6. DISCHARGE IMPACT ON RECEIVING WATER QUALITY:

As licensed, 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 waterbody to meet standards for Class C classification.

BASED on the above Findings of Fact, 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 existing water quality.

2. The discharge will not have a significant impact on the existing wildlife, aquatic life or plant uses and will not result in significant degradation of human uses of the receiving water.

3. The discharge, either by itself or in combination with other discharges, will not lower the water quality of any body of water below the lower limits of either its assigned classification or the classification which it is attaining.

4. The discharge will be subject to effluent limitations which require application of best practicable treatment.

5. The discharge will not cause or contribute to the failure of the waterbody to attain its assigned classification.

THEREFORE, the Department APPROVES the above noted application of the TOWN OF LISBON, to discharge treated sanitary waste waters to the Androscoggin River, Class C, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. The Special Conditions, on the following pages.

2. The Standard Conditions of Approval, a copy attached as Appendix A.

3. The term of this license is five (5) years from the date of signature.

DONE AND DATED AT AUGUSTA, MAINE, THIS 27 DAY OF January, 2000.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____

MARTHA KIRKPATRICK, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application June 16, 1999

Date of application acceptance June 17, 1999

Date filed with Board of Environmental Protection _____

FILED
JAN 27 2000
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

This Order prepared by GREGG WOOD, BUREAU OF LAND AND WATER QUALITY

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date of the license and lasting through license expiration, the licensee is authorized to discharge treated sanitary waste waters from **OUTFALL #001** to the Androscoggin River. Such discharges shall be limited and monitored by the licensee as specified below:

Effluent Characteristic	Discharge Limitations						Monitoring Requirements	
	Monthly Average lb/day	Weekly Average lb/day	Daily Maximum lb/day	Monthly Average	Weekly Average as specified	Daily Maximum	Measurement Frequency	Sample Type
Flow *[50050]*	---	---	---	2.025 MGD *[03]*	---	---	Continuous *[CN]*	Recorder *[RC]*
Biochemical Oxygen Demand *[00310]*	507 #/day *[26]*	760 #/day *[26]*	845 #/day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	3/Week *[03/07]*	Composite *[24]*
Total Suspended Solids *[00530]*	507 #/day [26]	760 #/day [26]	845 #/day [26]	30 mg/L [19]	45 mg/L [19]	50 mg/L [19]	3/Week *[03/07]*	Composite *[24]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	1/Day [01/01]	Grab *[GR]*
E. Coli Bacteria(1) *[31633]*	---	---	---	142/100 ml *[13]*	---	949/100 ml *[13]*	3/Week *[03/07]*	Grab *[GR]*
Total Residual Chlorine(1,2) *[50060]*	---	---	---	---	---	1.0 mg/L *[19]*	2/Day *[01/01]*	Grab *[GR]*
pH (Std. Unit) *[00400]*	---	---	---	---	---	6.0 – 8.5 *[12]*	1/Day [01/01]	Grab *[GR]*

The italicized numeric values bracketed in the table above are code numbers that Department personnel utilized to code the monthly Discharge Monitoring Reports.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd) – OUTFALL #001

SCREENING LEVEL TESTING – Beginning calendar year 2004.

Effluent Characteristic	Discharge Limitations					Monitoring Requirements		
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average as specified	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity (WET)(3)								
A-NOEL								
Ceriodaphnia dubia [TDA3B]	---	---	---	---	---	Report% [23]	1/Year [01/YR]	Composite [24]
Salvelinus fontinalis [TDA6F]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
C-NOEL								
Ceriodaphnia dubia [TBP3B]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Salvelinus fontinalis [TBQ6F]	---	---	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Chemical Specific(4)	---	---	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/ Grab [24/GR]

SPECIAL CONDITIONS

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

Footnotes:

1. E. coli bacteria and chlorine residual limits are seasonal and apply between May 15th and September 30th of each year. The Department reserves the right to require resumption of disinfection to protect the health, safety and welfare of the public.

2. Total Residual Chlorine shall be tested using any analytical method found in 40 CFR §136 or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136.4.

3. Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions), 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 calendar year 2004, the licensee shall initiate screening level WET tests at a frequency of once per year (any calendar quarter). Testing shall be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*). Results shall be reported as soon as they become available.

   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. Weber, C.I. et al., 1989. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, Office of Research and Development, USEPA, Cincinnati, Ohio (USEPA/600/4-89/001).

   b. Weber, C.I.(ed) 1991. Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, (Fourth Edition), Office of Research and Development, USEPA, Cincinnati, Ohio. (USEPA/600/4-90/027).

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

SPECIAL CONDITIONS

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

Footnotes: (cont'd)

4. 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 a 40 CFR Part 122, Appendix D, Tables II and III.

   Beginning calendar year 2004, screening level chemical specific testing shall be conducted at a frequency of once per quarter for 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 as soon as they become available.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time.

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.

4. Notwithstanding specific conditions of this license 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

Disinfection shall be used to reduce the concentration of bacteria to or below the level specified in the "Effluent Limitations and Monitoring Requirements" section of this license. If chlorination is used as the means of disinfection, an approved chlorine detention tank must be utilized. The total residual chlorine in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. At no time shall the total residual chlorine of the effluent exceed 1.0 mg/L.

SPECIAL CONDITIONS

D. TREATMENT PLANT OPERATOR

The Treatment Facility must be operated by a person holding a **Grade IV** 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 licensee may engage the services of the contract operator.

E. MONITORING AND REPORTING

The results of the monitoring requirements shall be reported on forms approved by the Department in the units specified at a frequency of once monthly in accordance with Section 5 of the attached Standard Conditions and directed to:

Bureau of Land and Water Quality
Department of Environmental Protection
State House Station #17
Augusta, Maine 04333

F. REOPENING OF LICENSE FOR MODIFICATIONS

Upon evaluation of whole effluent toxicity and/or chemical specific (priority pollutant) test results or new site specific information, the Department may, at anytime and with notice to the licensee, modify this license 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.

G. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

During the effective period of this license, the licensee is authorized to receive **5,000 gallons per day** of septage into its waste water treatment facility 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, receipt of septage shall be suspended until effluent quality can be maintained.

3) The licensee 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 treatment influent and test results.

SPECIAL CONDITIONS

G. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY (cont'd)

4) Addition of septage shall not cause the treatment facilities design capacity to be exceeded. If, for any reason, the treatment facility becomes overloaded, receipt of septage shall be reduced or terminated in order to eliminate the overload condition.

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.

H. CHAPTER 530.5(B)(7)(c)(iii) CERTIFICATION

By January 1 of each calendar year, the licensee shall provide the Department with a certification that none of the following has occurred since the effective date of this license:

a. 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.

b. Changes in the condition or operations of the facility that may increase the toxicity of the discharge.

c. Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.

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

I. EFFLUENT LIMITATIONS AND CONDITIONS FOR COMBINED SEWER OVERFLOWS

1. The licensee is authorized to discharge storm water/waste water from pump station emergency bypass overflows from the following locations. Discharges are subject to the conditions and requirements contained herein:

Outfall #	Description	Location	Receiving Water & Class
002	Pump Station	Davis Street	Androscoggin River, C
003	Pump Station	Route #196	Sabattus River, B
004	Pump Station	Juliet Mills	Sabattus River, B
005	Pump Station	D & B	Sabattus River, B
006	Pump Station	Ridge Street	Sabattus River, B
008	Pump Station	Summer Street	Unnamed Drainage Swale

SPECIAL CONDITIONS

H. EFFLUENT LIMITATIONS AND CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

a) Dry weather overflows are prohibited. Authorized overflows are limited to only those which result directly from precipitation events and snow melt which flows overland into the sewerage system. All other overflows shall be reported to the Department in accordance with non-compliance reporting requirements.

b) The effluent shall not contain a visible oil sheen, foam, or floating solids at any time.

c) The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life; or which would impair the usage designated by the classification of the receiving waters.

d) The discharge shall not impart color, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsuitable for the designated uses and other characteristics ascribed to their class.

e) Notwithstanding specific conditions of this license 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.

f) No discharges shall occur at flow rates below the design capacity of the wastewater treatment facility, pumping stations or sewerage system.

2. CSO Long Term Control Plan

By September 1, 2000, the licensee shall submit to the Department for review and approval, Phase I of the CSO Monitoring Plan. In addition, based upon the results of the Phase I CSO Monitoring Plan, the licensee shall submit a scope of work and schedule for projects to be undertaken over the next five year period to remove or further define and quantify inflow sources (including private) to the collection system. The implementation schedule may be amended from time to time based on mutual agreements between the Town of Lisbon and the Department.

3. CSO Compliance Monitoring Program

The licensee shall conduct block testing or flow monitoring according to a Compliance Monitoring Program as approved by the Department of all CSOs and shall submit a report documenting CSO occurrences for the period January 1 to December 31 of each year. The annual precipitation, flow, and block data shall be submitted on a form entitled "CSO Volumes and Activity", supplied by the Department (or similar format), and shall

SPECIAL CONDITIONS

H. EFFLUENT LIMITATIONS AND CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

be part of the annual CSO progress report (see below). Annual flow volumes for the previous year from all CSO locations shall be determined by actual flow monitoring, or by estimation using a model such as SWMM. The information shall be submitted on diskette, to allow easy data entry by the Department.

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.

4. CSO Progress Reports

The licensee shall submit CSO progress reports by March 1 of each year covering the previous calendar year.

The CSO progress report shall include, but is not necessarily limited to, the following topics:

A. CSO abatement projects including milestone dates such as design start and completion and construction start and completion.

B. A comparison of the existing schedule with the Department approved implementation schedule. If the existing schedule is behind the approved schedule, list the reasons why, and how the licensee proposes to catch up in order to comply with the approved schedule.

C. Progress made on locating and removing private inflow sources, such as roof leaders and basement sump pumps.

D. Total cost and local share of CSO abatement projects to date, plus an anticipated budget for projects in the next year.

E. Results of any specific flow monitoring to determine effectiveness of previous CSO abatement projects. Compare actual CSO abatement with projections made during the CSO Master Plan.

F. Yearly precipitation, CSO volumes,(actual or estimated) and any block test data (see 4. CSO Compliance Monitoring Program) submitted on Department form titled "CSO Activity and Volumes". The form should be submitted on diskette to allow easy date entry. Report any abnormalities during CSO monitoring.

SPECIAL CONDITIONS

H. EFFLUENT LIMITATIONS AND CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

G. Work done on the Nine Minimum Controls during the year including, but not limited to:

1. Results of operation and maintenance programs for the sewer system and combined sewer overflows during the year, such as, frequency of regulator inspections, number of catch basins cleaned, and feet of sewer cleaned or repaired, with estimates of material removed, if possible.

2. Low cost projects to maximize use of the collection system for storage or to maximize flow to the POTW for treatment.

3. Modifications to the pretreatment program to assure the CSO impacts are minimized.

4. Low cost projects that maximize flow to the POTW for treatment.

5 Documentation that no CSO discharges occurred during dry weather.

6. Projects to control solid and floatable materials in CSO discharges.

7. Pollution prevention programs that focus on contaminant reduction activities.

8. Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts.

9. Any monitoring and sampling results to effectively characterize CSO impacts and the effectiveness of CSO controls.

H. List any sewer extensions and new commercial or industrial flows added during the year, along with what mitigating measures were accomplished to prevent these flows from contributing to CSOs.

I. 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:

Stephen A. McLaughlin, CSO Coordinator
Department of Environmental Protection
Bureau of Land and Water
State House Station #17
Augusta, Maine
e-mail: steve.a.mclaughlin@state.me.us

SPECIAL CONDITIONS

H. EFFLUENT LIMITATIONS AND CONDITIONS FOR COMBINED SEWER OVERFLOWS (cont'd)

5. DEFINITIONS

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

1. 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.

2. Dry Weather Flow - flow in a sewerage system that occurs as a result of non-storm events or are caused solely by ground water infiltration.

3. Wet Weather Flows - flow in a sewerage system that occurs as a result of a storm event or snowmelt in combination with the dry weather flows.

Salmonid Survival and Growth Tests

The Salmonid survival (acute) and growth (chronic) tests shall follow the procedures for the Fathead Minnow larval survival and growth tests detailed in EPA's Methods Manuals (listed above), with the following modifications:

Species: Brook Trout, or other salmonid approved by the DEP.

Age: Less than 6 months old for the first test each year, and less than 12 months old for subsequent tests. (NOTE: Where a WET test is being done to satisfy both DEP and EPA testing requirements, the age of the salmonid used must be less than 60 days.)

Size: The largest fish must not be greater in size than 150% of the smallest fish.

Loading Rate: < 0.5 g/l/day.

Feeding Rate: 5% of body weight 3 times daily (15%/day).

Temperature: 12° ± 1° C.

Dissolved Oxygen: 6.5 mg/l (aeration if needed with large bubbles [> 1 mm diameter] at a rate of < 100/minute).

Dilution Water: Receiving water upstream of discharge, or other water approved by the DEP.

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 1Q10 river flow and daily maximum discharge flow for acute test); a receiving water control; and control of known suitable water quality.

Exception: Where license 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 of 20 mg/gm/d dry weight in controls (individual fish weighed, dried at 100° C to constant weight and weighed to 3 significant figures).

ATTACHMENT A

Species	Test	Test Result %	Sample Date
FATHEAD	LC50	>100	01/15/1991
WATER FLEA	LC50	>100	01/15/1991
FATHEAD	LC50	>100	03/01/1992
WATER FLEA	LC50	>100	03/01/1992
TROUT	LC50	>100	07/18/1992
WATER FLEA	LC50	>17.5	07/18/1992
TROUT	LC50	>100	09/01/1992
WATER FLEA	LC50	17.5	09/01/1992
FATHEAD	LC50	70.70	01/19/1993
TROUT	LC50	70.7	01/21/1993
WATER FLEA	LC50	>100	01/21/1993
FATHEAD	LC50	>70.7	03/01/1993
WATER FLEA	LC50	>100	03/01/1993
TROUT	LC50	78.74	09/01/1993
WATER FLEA	LC50	>100	09/01/1993
FATHEAD	LC50	45.2	03/01/1994
WATER FLEA	LC50	>100	03/01/1994
FATHEAD	A_NOEL	50	09/01/1994
FATHEAD	LC50	100	09/01/1994
WATER FLEA	A_NOEL	50	09/01/1994
WATER FLEA	LC50	91.7	09/01/1994
FATHEAD	A_NOEL	50	02/03/1995
FATHEAD	LC50	>100	02/03/1995
WATER FLEA	A_NOEL	100	02/03/1995
WATER FLEA	LC50	>100	02/03/1995
FATHEAD	A_NOEL	100	10/01/1996
FATHEAD	LC50	>100	10/01/1996
TROUT	A_NOEL	100	10/01/1996
TROUT	LC50	>100	10/01/1996
WATER FLEA	A_NOEL	100	10/01/1996
WATER FLEA	LC50	>100	10/01/1996
FATHEAD	A_NOEL	55.3	09/22/1997
FATHEAD	LC50	74.0	09/22/1997
TROUT	A_NOEL	100	09/22/1997
TROUT	LC50	>100	09/22/1997
WATER FLEA	A_NOEL	100	09/22/1997
WATER FLEA	LC50	>100	09/22/1997
FATHEAD	A_NOEL	70	07/19/1998
FATHEAD	LC50	>100	07/19/1998
TROUT	A_NOEL	100	07/19/1998
TROUT	C_NOEL	50	07/19/1998

Species	Test	Test Result %	Sample Date
TROUT	LC50	>100	07/19/1998
WATER FLEA	A_NOEL	100	07/19/1998
WATER FLEA	C_NOEL	25	07/19/1998
WATER FLEA	LC50	>100	07/19/1998

ATTACHMENT B

Sample Date: 03/08/1995
Plant flows not provided

Total Tests: 67
Missing Compounds: 73
Tests With High DL: 18

M = 0	V = 1	A = 1
BN = 15	P = 1	other = 0

Sample Date: 05/23/1995
Plant flows not provided

Total Tests: 141
Missing Compounds: 8
Tests With High DL: 60

M = 2	V = 1	A = 7
BN = 40	P = 10	other = 0

Sample Date: 08/15/1995
Plant flows not provided

Total Tests: 139
Missing Compounds: 9
Tests With High DL: 69

M = 4	V = 1	A = 6
BN = 43	P = 15	other = 0

Sample Date: 10/25/1995
Plant flows not provided

Total Tests: 138
Missing Compounds: 10
Tests With High DL: 70

M = 6	V = 1	A = 6
BN = 42	P = 15	other = 0

Sample Date: 03/31/1996
Plant flows not provided

Total Tests: 126
Missing Compounds: 6
Tests With High DL: 37

M = 8	V = 5	A = 1
BN = 8	P = 15	other = 0

Sample Date: 06/25/1997
Plant flows not provided

Total Tests: 122
Missing Compounds: 2
Tests With High DL: 2

M = 2	V = 0	A = 0
BN = 0	P = 0	other = 0

Sample Date: 01/04/1999
Plant flows provided

Total Tests: 123
Missing Compounds: 1
Tests With High DL: 0

mon.(MGD) = 0.818
day(MGD) = 0.526

M = 0	V = 0	A = 0
BN = 0	P = 0	other = 0

Definitions:

DL = Department Reporting Limit
M = Metals
BN = Base/Neutrals
V = Volatiles
P = Pesticides
A = Acids

ATTACHMENT C

FRESHWATER WHOLE EFFLUENT TOXICITY (WET) TEST REPORT

Facility _____ DEP License No _____ NPDES permit No _____

Contact person _____ Telephone No _____

Date initially sampled _____ (mm/dd/yy) Date tested _____ (mm/dd/yy) Chlorinated? _____

Test type screening _____ surveillance _____ Dechlorinated? _____

Results % effluent Test required by: DEP/EPA _____

	Water flea	Trout	Fathead
LC50			
A-NOEL			
C-NOEL			

Receiving Water Concentration

A-NOEL	
C-NOEL	

Data summary

	water flea			tro ut			fat head		
	% survival		no. young	% survival		final wt (mg)	% survival		final wt (mg)
QC standard	A>90	C>80	>15/female	A>90	C>80	>2% increase	A>89	C>79	>0.25
lab control									
river 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		tro ut		fat head	
	LC50/A-NOEL	C-NOEL	LC50/A-NOEL	C-NOEL	LC50/A-NOEL	C-NOEL
toxicant / date						
limits (mg/l)						
results (mg/l)						

Comments _____

Laboratory Conducting Test. To the best of my knowledge this information is true, accurate, and complete

signature _____ company _____

printed name _____ address _____

tel. no. _____

ANALYTICAL CHEMISTRY RESULTS
FRESHWATER TESTS

Date collected _____ mm/dd/yy Date analyzed _____ mm/dd/yy

Lab ID No. _____

Analyte	Report Units	Results receiving water	Results effluent	Detection level	Method
Alkalinity	mg/L			mg/L	
Ammonia nitrogen	µg/L			µg/L	
Specific conductance	µmhos			µmhos	
Total residual chlorine	mg/L			mg/L	
Total organic carbon	mg/L			mg/L	
Total solids	mg/L			mg/L	
Total suspended solids	mg/L			mg/L	
Total aluminum	µg/L			µg/L	
Total cadmium	µg/L			µg/L	
Total calcium	mg/L			mg/L	
Total chromium	µg/L			µg/L	
Total copper	µg/L			µg/L	
Total hardness	mg/L			mg/L	
Total lead	µg/L			µg/L	
Total magnesium	µg/L			µg/L	
Total nickel	µg/L			µg/L	
Total zinc	µg/L			µg/L	
other (pH)	S.U.			S.U.	
other ( )					

Comments _____

Laboratory conducting test. To the best of my knowledge this information is true, accurate, and complete

signature _____ lab name _____

printed name _____ address _____

tel. no. _____