March 10, 2008

Mr. Dale Abernethy
Town Manager, Town of Castine
67 Court Street
P.O. Box 204
Castine, Maine 04421-0204

RE: Maine Waste Discharge License (WDL) Application #W002623-5L-C-M
Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0101192
Minor Revision

Dear Abernethy:

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

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

Sincerely,

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

Enc. Clarissa Trasko, DEP/EMRO
Lori Mitchell, DEP/CMRO
Sandy Lao, USEPA

IN THE MATTER OF

TOWN OF CASTINE	)	MAINE POLLUTANT DISCHARGE
CASTINE, HANCOCK COUNTY, MAINE	)	ELIMINATION SYSTEM PERMIT
PUBLICLY OWNED TREATMENT WORKS	)	AND
ME0101192	)	WASTE DISCHARGE LICENSE
W002623-5L-C-M **APPROVAL**	)	**MINOR REVISION**

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 hereinafter) is modifying the above referenced permit for the TOWN OF CASTINE (Town hereinafter)**,** based on THE FOLLOWING FACTS:

MINOR REVISION JUSTIFICATION

Department records indicate that on August 7, 2006 and January 22, 2007, the Town submitted test results of 16 ug/L and 9.0 ug/L respectively, for total copper that exceed the acute ambient water quality criteria (AWQC) of 5.78 ug/L for total copper. In addition, on August 7, 2006 the Town submitted an acute whole effluent toxicity (WET) test result of 20% for the mysid shrimp that exceeds the critical acute water quality threshold of 100% (mathematical inverse of the acute dilution factor of 1:1). Department rule, 06-096 CMR, Chapter 530, *Surface Water Toxics Control Program*, §3(C) states

> *"The Department shall review all testing data as received. If these data indicate that the discharge is causing an exceedence of applicable water quality criteria, then: (1) the licensee must, within 45 days of becoming aware of an exceedence, submit a TRE plan for review and approval and implement the TRE after Department approval; and (2) the Department must, within 180 days of the Department's written approval of the TRE plan, modify the waste discharge license to specify effluent limits and monitoring requirements necessary to control the level of pollutants and meet receiving water classification standards."*

Therefore, pursuant to Department rule Chapter 530 and Special Condition K, *Reopening of Permit for Modifications*, of combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0101192/ Waste Discharge License (WDL) W002623-5L-B-R issued by the Department on December 22, 2004, this minor revision is establishing effluent limits and monitoring requirements necessary to control the level of pollutants and meet receiving water classification standards.

MINOR REVISION SUMMARY

This permit modification establishes daily maximum water quality based mass and concentration limits of 0.0061 lbs/day and 8.7 ug/L respectively, for copper and an acute WET limit of 100% for the mysid shrimp.

CONCLUSIONS

BASED on the findings in the findings of the Fact Sheet dated March 10, 2008, 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 minor revision of the TOWN OF CASTINE's , MEPDES permit ME0101192/WDL W002623-5L-B-R issued by the Department on December 22, 2004, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. "*Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits,"* revised July 1, 2002, copy attached to the 12/22/04 MEPDES/WDL.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. All other terms and conditions in the 12/22/04 MEPDES/WDL not modified by this minor revision remain in effect and enforceable.

4. This minor revision **expires on December 22, 2009**, concurrent with the 12/22/04 MEPDES/WDL.

DONE AND DATED AT AUGUSTA, MAINE, THIS 12th DAY OF March, 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt February 1, 2008 .

Date of initial action February 8, 2008 .

Date filed with Board of Environmental Protection _____

This order prepared by Gregg Wood, Bureau of Land and Water Quality.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – OUTFALL #001A

1. The permittee is authorized to discharge secondary treated waste waters from **Outfall #001** to the tidewaters of Castine. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations						Minimum Monitoring Requirements	
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, MGD *[50050]*	0.126 MGD *[03]*	---	Report MGD *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
BOD_5 *[00310]*	32 lbs/Day *[26]*	47 lbs/Day *[26]*	53 lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
BOD_5 % Removal (1) ***[81010]***	---	---	---	85 % ***[23]***	---	---	1/Month ***[01/30]***	Calculate ***[CA]***
TSS *[00530]*	32 lbs/Day *[26]*	47 lbs/Day *[26]*	53 lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	1/Week *[01/07]*	Composite *[24]*
TSS % Removal (1) ***[81011]***	---	---	---	85 % ***[23]***	---	---	1/Month ***[01/30]***	Calculate ***[CA]***
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	1/Day *[01/01]*	Grab *[GR]*
Fecal Coliform Bacteria (2) *(Year round)* *[31616]*	---	---	---	15/100 ml (3) *[13]*	---	50/100 ml *[13]*	3/Week *[03/07]*	Grab *[GR]*
Total Residual Chlorine (4) *[50060]*	---	---	---	---	---	0.013 mg/L (4) *[19]*	1/Day *[12/01]*	Grab *[GR]*
pH *[00400]*	---	---	---	---	---	6.0-9.0 S.U. *[12]*	1/Day *[01/01]*	Grab *[GR]*
Copper (Total) *[01042]*	---	---	0.0061 #/Day *[26]*	---	---	8.7 ug/L *[28]*	1/Quarter *[0190]*	Composite *[24]*

The italicized numeric values bracketed in the table above and the tables on the following pages are code numbers that Department personnel utilize to code the monthly Discharge Monitoring Reports (DMR's).

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

SURVEILLANCE LEVEL - Beginning upon issuance of this minor revision and lasting through 12 months prior to permit expiration.

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	*Sample Type*
Whole Effluent Toxicity(5) Acute – NOEL *Mysidopsis bahia* [TDM3E] *(Mysid Shrimp)*	---	---	---	100 % [23]	1/Year [01/YR]	Composite [24]
Chronic – NOEL *Arbacia punctulata* [TBH3A] *(Sea urchin)*	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Analytical Chemistry(6) [51168]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]

SCREENING LEVEL – Beginning 12 months prior to permit expiration and every 5 year thereafter

	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity(5) Acute – NOEL *Mysidopsis bahia* [TDM3E] *(Mysid Shrimp)*	---	---	---	100 % [23]	1/Year [01/YR]	Composite [24]
Chronic – NOEL *Arbacia punctulata* [TBH3A] *(Sea urchin)*	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Analytical Chemistry(6) [51168]	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/Grab [24]
Priority Pollutant(7) [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]

SPECIAL CONDITIONS

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

5. **Whole Effluent Toxicity (WET)** - Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the acute and chronic critical thresholds of 100 % and 0.7% 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. Acute tests shall be conducted on the mysid shrimp (*Mysidopsis bahia*) and chronic tests shall be conducted on the sea urchin (*Arbacia punctulata*). The critical acute and chronic thresholds were derived as the mathematic inverse of the applicable acute and chronic dilution factors of 1:1 and 148:1 respectively.

   a. Surveillance and screening level testing – Beginning upon issuance of this minor revision and lasting through permit expiration, the permittee shall conduct WET testing at a minimum frequency of (1/Year) for both the mysid shrimp and the sea urchin. Testing shall be conducted in a different calendar quarter of each year.

   WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days after receiving the results from the laboratory before submitting them. The permittee shall evaluate test results being submitted and identify to the Department possible exceedences of the critical acute and chronic water quality thresholds of 100% and 0.7%, respectively.

   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. Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Marine and Estuarine Organisms, Third Edition, October 2002, EPA-821-R-02-014.

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

   The permittee is also required to analyze the effluent for the nine (9) parameters specified in the WET chemistry section, and the twelve (12) parameters specified in the analytical chemistry section, of the form in Attachment A of this minor revision each time a WET test is performed.

SPECIAL CONDITIONS

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

Footnotes:

6. **Analytical chemistry** – Refers to a suite of twelve (12) chemical tests that consist of ammonia nitrogen (as N), total aluminum, total arsenic, total cadmium, total chromium, total copper, total cyanide, total lead, total nickel, total silver, total zinc and total residual chlorine.

   a. Surveillance level testing – Beginning upon issuance of this permit revision and lasting through 12 months prior to permit expiration, the permittee shall conduct surveillance level analytical chemistry at a frequency of 1/Year.

   b. Screening level testing – Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter). As with WET testing, the Department has waived surveillance level testing in the first four years of the term of the permit in accordance with the criteria established Department rule Chapter 530 (2)(D)(3)(b).

7. **Priority pollutant testing –** Priority pollutants are those parameters listed by Department rule, Chapter 525, Section 4(IV).

   a. Screening level testing - Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once per year (1/Year). It is noted Chapter 530 does not require routine surveillance level priority pollutant testing in the first four years of the term of this permit.

   Priority pollutant and analytical chemistry testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests when applicable. Priority pollutant and analytical chemistry testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. See Attachment A of this permit for a list of the Department's reporting levels (RLs) of detection.

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

SPECIAL CONDITIONS

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

Footnotes:

All mercury sampling required to determine compliance with interim limitations established pursuant to Department rule Chapter 519, 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. See Attachment B of this permit for the Department's report form for mercury results.

L. TOXICITY REDUCTION EVALUATION (TRE)

On or before April 15, 2008, *[PCS code 02199]* the permittee shall submit to the Department for review and approval, a TRE plan which outlines a strategy to identify the source(s) and action items to be implemented to mitigate or eliminate exceedences of ambient water quality criteria associated with copper and the acute toxicity associated with the mysid shrimp.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

AND

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **March 10, 2008**

PERMIT NUMBER: **ME0101192**
LICENSE NUMBER: **W002623-5L-C-M**

NAME AND ADDRESS OF APPLICANT:

TOWN OF CASTINE
P. O. Box 204
Castine, Maine 04421

COUNTY: **Hancock County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Town of Castine
Castine, Maine 04421

RECEIVING WATER AND CLASSIFICATION: **Castine, Class SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Dale Abernethy**
Town Manager
(207) 326-4502

1. MINOR REVISION JUSTIFICATION

Department records indicate that on August 7, 2006 and January 22, 2007, the Town submitted test results of 16 ug/L and 9.0 ug/L respectively, for total copper that exceed the acute ambient water quality criteria (AWQC) of 5.78 ug/L for total copper. In addition, on August 7, 2006 the Town submitted an acute whole effluent toxicity (WET) test result of 20% for the mysid shrimp that exceeds the critical acute water quality threshold of 100% (mathematical inverse of the acute dilution factor of 1:1). Department rule, 06-096 CMR, Chapter 530, *Surface Water Toxics Control Program,* §3(C) states;

> *"The Department shall review all testing data as received. If these data indicate that the discharge is causing an exceedence of applicable water quality criteria, then: (1) the licensee must, within 45 days of becoming aware of an exceedence, submit a TRE plan for review and approval and implement the TRE after Department approval; and (2) the Department must, within 180 days of the Department's written approval of the TRE plan, modify the waste discharge license to specify effluent limits and monitoring requirements necessary to control the level of pollutants and meet receiving water classification standards."*

1. MINOR REVISION JUSTIFICATION (cont'd)

Therefore, pursuant to Department rule Chapter 530 and Special Condition K, *Reopening of Permit for Modifications*, of combination Maine Pollutant Discharge Elimination System (MEPDES) permit ME0101192/ Waste Discharge License (WDL) W002623-5L-B-R issued by the Department on December 22, 2004, this minor revision is establishing effluent limits and monitoring requirements necessary to control the level of pollutants and meet receiving water classification standards.

2. MINOR REVISION SUMMARY

This minor revision establishes daily maximum water quality based mass and concentration limits of 0.0061 lbs/day and 8.7 ug/L respectively, for copper and an acute WET limit of 100% for the mysid shrimp.

3. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Maine law, 38 M.R.S.A., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department Rules, 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, and Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants* set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

a. Dilution Factors - Department rule Chapter 530, *Surface Water Toxics Control Program*, §D(3)(b) states that for discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE or CORMIX. The previous permitting action established dilution factors as follow:

Acute = 1:1 Chronic = 148:1 Harmonic mean [(1)] = 444:1

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

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

Chapter 530 §(3)(E) states "*For effluent monitoring data and the variability of the pollutant in the effluent, the Department shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license. Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action.*"

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

Chapter 530 §3(C) states in part; *"If these data indicate that the discharge is causing an exceedence of applicable water quality criteria, then: (1) the licensee must, within 45 days of becoming aware of an exceedence, submit a TRE plan for review and approval and implement the TRE after Department approval; and (2) the Department must, within 180 days of the Department's written approval of the TRE plan, modify the waste discharge license to specify effluent limits and monitoring requirements necessary* to control the level of pollutants and meet receiving water classification standards."

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

b. <u>WET Evaluation</u>

On February 15, 2008, the Department conducted a statistical evaluation on the most recent 60 months of WET test results on file with the Department in accordance with the statistical approach in Chapter 530. The statistical evaluation indicates the discharge from the permittee's waste water treatment facility has one A-NOEL test result of 20% (8/7/06) for the mysid that exceeds the critical acute water quality threshold of 100%. Therefore, an A-NOEL limit of 100% is being established in this minor revision. In addition, pursuant to Department rule 06-096 CMR, Chapter 530 §3(C), Special Condition L, *Toxicity Reduction Evaluation (TRE)*, of this minor revision requires the Town to submitted a TRE to the Department on or before April 15, 2008 to mitigate the acute toxicity associated with the mysid shrimp.

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

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

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

Chapter 530 §(3)(D) states *"Expression of effluent limits. Where the need for effluent limits has been determined, limits derived from acute water quality criteria must be expressed as daily maximum values. Limits derived from chronic or human health criteria must be expressed as monthly average values."*

On 2/15/08, the Department conducted a statistical evaluation on the most recent 60 months of analytical chemistry and priority pollutant test results on file with the Department in accordance with the statistical approach outlined in Chapter 530. The statistical evaluation indicates the discharge has two test results of 16 ug/L (8/1/06) and 9.0 ug/L (1/22/07) for total copper that exceed the acute AWQC of 5.78 ug/L. As a result, daily maximum water quality based mass and concentration limits were derived as follows:

Copper (Total):

Acute AWQC = 5.78 ug/L
Acute dilution factor = 1.0:1

EOP concentration = [Dilution factor x 0.75 x AWQC] + [0.25 x AWQC]

EOP = [1.0 x 0.75 x 5.78 ug/L] + [0.25 x 5.78 ug/L] = 5.78 ug/L

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

Based on a permitted flow of 0.126 MGD, EOP mass limits are as follows:

Parameter	Calculated EOP Concentrations	Daily Max. Mass Limit
Copper	5.8 ug/L	0.0061 lbs/day

Example Calculation: Copper- $\frac{(5.8 \text{ ug/L})(8.34)(0.126 \text{ MGD})}{1{,}000 \text{ ug/mg}} = 0.0061$ lbs/day

Chapter 530 §(3)(D)(1) states "*For specific chemicals, effluent limits must be expressed in total quantity that may be discharged and in effluent concentration. In establishing concentration, the Department may increase allowable values to reflect actual flows that are lower than permitted flows and/or provide opportunities for flow reductions and pollution prevention provided water quality criteria are not exceeded. With regard to concentration limits, the Department may review past and projected flows and set limits to reflect proper operation of the treatment facilities that will keep the discharge of pollutants to the minimum level practicable.*"

As not to penalize the permittee for operating at flows less than the permitted flow, the Department is establishing concentration limits based on a factor of 1.5. Therefore, concentration limits for the parameter of concern in this permit are as follows:

Parameter	Calculated EOP Concentration	Daily Max. Conc. Limit
Copper	5.8 ug/L	8.7 ug/L

As with the mysid shrimp, pursuant to Department rule 06-096 CMR, Chapter 530 §3(C), Special Condition L, *Toxicity Reduction Evaluation (TRE)*, of this minor revision requires the Town to submitted a TRE to the Department on or before April 15, 2008 to mitigate the acute toxicity associated with the discharge of copper.

4. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge from the waste water treatment plant will not cause or contribute to the failure of the waterbody to meet standards for Class SB classification.

5. DEPARTMENT CONTACT

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

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