March 7, 2008

Mr. Philip Pickering
Plant Manager
Ogunquit Sewer District
School Street, P.O. Box 934
Ogunguit, ME. 03907

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0100986
Maine Waste Discharge License (WDL) Application #W000449-5L-F-R
Final Permit

Dear Mr. Pickering:

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

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

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

Sincerely,

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

Enc.
cc: Matt Hight, DEP/SMRO
Sandy Lao, USEPA

IN THE MATTER OF

OGUNQUIT SEWER DISTRICT	)	MAINE POLLUTANT DISCHARGE
PUBLICLY OWNED TREATMENT WORKS	)	ELIMINATION SYSTEM PERMIT
OGUNQUIT, YORK COUNTY, MAINE	)	AND
ME0100986	)	WASTE DISCHARGE LICENSE
W000449-5L-G-R **APPROVAL**	)	**RENEWAL**

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) has considered the application of the OGUNQUIT SEWER DISTRICT (OSD hereinafter), with its supportive data, agency review comments, and other related material on file and finds the following facts:

APPLICATION SUMMARY

The OSD has applied to the Department for renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100986/Maine Waste Discharge License (WDL) #W000449-5L-F-R (permit hereinafter) which was issued by the Department on February 25, 2003 and is due to expire on February 25, 2008. The 2/25/03 permit authorized the discharge of up to a monthly average flow of 1.28 million gallons per day (MGD) of secondary treated sanitary waste waters from a publicly owned treatment works facility to the Atlantic Ocean, Class SB, in Ogunquit, Maine. The permittee has requested the Department establish a daily maximum water quality based concentration limit for TRC during the period October – March which is less stringent than the technology based TRC limits established between April – September of each year.

PERMIT SUMMARY

This permitting action is <u>similar to</u> the 2/25/03 permitting action in that it is;

1. Carrying forward the monthly average flow limit of 1.28 MGD.

2. Carrying forward the monthly average, weekly average and daily maximum technology based mass and concentration limits for biochemical oxygen demand (BOD_5) and total suspended solids (TSS).

3. Carrying forward the monthly average and daily maximum water quality based limits for fecal coliform bacteria and the requirement for year-round disinfection.

4. Carrying forward whole effluent toxicity (WET) and chemical specific (priority pollutant) testing pursuant to Department rule Chapter 530, *Surface Water Toxics Control Program.*

5. Carrying forward the daily maximum technology based limit of 0.3 ml/L for settleable solids.

6. Carrying forward the monthly average and daily maximum technology based concentration limits of concentration limit 0.1 mg/L and 0.3 mg/L respectively for total residual chlorine.

7. Carrying forward the daily maximum technology based pH range limit of 6.0 – 9.0 standard units.

PERMIT SUMMARY

8. Carrying forward a requirement to maintain an up-to-date Wet Weather Flow Management Plan and up-to-date Operations and Maintenance Plan for the facility.

This permit is different than the 2/25/03 permit in that;

9. It establishes water quality based mass and concentration limits for inorganic arsenic.

10. It establishes a daily maximum water quality based concentration limit for TRC during the period October – March.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated January 31, 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 application of the OGUNQUIT SEWER DISTRICT, to discharge up to a monthly average of 1.28 million gallons per day of secondary treated sanitary waste waters to the Atlantic Ocean, Class SB, subject to the attached conditions and all applicable standards and regulations:

1. "*Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*," revised July 1, 2002, copy attached.

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

3. This permit expires five (5) years from the date of signature below.

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

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY:_____
David P. Littell, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application January 10, 2008.

Date of application acceptance January 15, 2008.

Date filed with Board of Environmental Protection _____

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

Ogunquit2008 3/10/08

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Beginning upon issuance of this permit the permittee is authorized to discharge secondary treated wastewaters from **OUTFALL # 002** to the Atlantic Ocean. Such discharges shall be limited and monitored by the permittee as specified below. The italicized numeric values bracketed in the table below and on the following pages are code numbers that Department personnel utilize to code Discharge Monitoring Reports (DMR's).

Effluent Characteristic	**Discharge Limitations**						**Minimum Monitoring Requirements**	
	Monthly Average	**Weekly Average**	**Daily Maximum**	**Monthly Average**	**Weekly Average**	**Daily Maximum**	**Measurement Frequency**	**Sample Type**
Flow *[50050]*	1.28 MGD *[03]*	---	Report MGD *[03]*	---	---	---	Continuous *[99/99]*	Recorder *[RC]*
Biochemical Oxygen Demand (BOD_5) *[00310]*	320 lbs/Day *[26]*	480 lbs/Day *[26]*	534 lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Week *[02/07]*	24 Hr. Composite *[24]*
BOD5 % Removal **(1)** *[81010]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Total Suspended Solids (TSS) *[00545]*	320 lbs/Day *[26]*	480 lbs/Day *[26]*	534 lbs/Day *[26]*	30 mg/L *[19]*	45 mg/L *[19]*	50 mg/L *[19]*	2/Week *[02/07]*	24 Hr. Composite *[24]*
TSS % Removal **(1)** *[81011]*	---	---	---	85% *[23]*	---	---	1/Month *[01/30]*	Calculate *[CA]*
Settleable Solids *[00545]*	---	---	---	---	---	0.3 ml/L *[25]*	5/Week *[05/07]*	Grab *[GR]*
Fecal Coliform Bacteria **(2)** *[74055]*	---	---	---	15/100 ml**(3)** *[13]*	---	50/100 ml *[13]*	2/Week *[02/07]*	Grab *[GR]*
Total Residual Chlorine**(4)** *(April – September)* *(October – March)[50060]*	 --- ---	 --- ---	 ---	 0.1 mg/L *[19]* ---	 --- ---	 0.3 mg/L 0.65 mg/L *[19]*	 1/Day 1/Day *[01/01]*	 Grab Grab *[GR]*
Arsenic (Total) **(5)** *[01002]* *(Upon permit issuance)*	Report lbs/Day *[26]*	---	---	Report ug/L *[28]*	---	---	1/Quarter *[01/90]*	Composite*[24]*
Arsenic (Inorganic) **(6)** *[01252]* *(Upon EPA method approval)*	0.068 lbs/Day *[26]*	---	---	6.4 ug/L *[28]*	---	---	1/Year*[01/YR]*	Composite*[24]*
pH (Std. Units) *[00400]*	---	---	---	---	---	6.0-9.0 *[12]*	5/Week *[05/07]*	Grab *[GR]*

SPECIAL CONDITIONS

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

SCREENING LEVEL **-** Beginning 12 months prior to permit expiration and lasting through permit expiration and every five years thereafter.

Effluent Characteristic	**Discharge Limitations**				**Minimum Monitoring Requirements**	
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Whole Effluent Toxicity[7] **Acute – NOEL**						
Mysidopsis bahia [TDM3E] (Mysid Shrimp)	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Chronic – NOEL						
Arbacia punctulata [TBH3A] (Sea urchin)	---	---	---	Report % [23]	1/Year [01/YR]	Composite [24]
Analytical Chemistry[8,9] [51168]	---	---	---	Report ug/L [28]	1/Quarter [01/90]	Composite/Grab [24]
Priority Pollutant[9] [50008]	---	---	---	Report ug/L [28]	1/Year [01/YR]	Composite/Grab [24]

SPECIAL CONDITIONS

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

Footnotes:

Sampling – Sampling the treatment plant effluent shall be conducted after the dechlorination chamber on a year-round basis. Any change in sampling location must be approved by the Department in writing. 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, c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services. Samples that are sent to another POTW licensed pursuant to *Waste discharge licenses*, 38 M.R.S.A. § 413 are subject to the provisions and restrictions of *Maine Comprehensive and Limited Environmental Laboratory Certification Rules*, 10-144 CMR 263 (last amended February 13, 2000).

All detectable analytical test results shall be reported to the Department including results which are detected below the respective reporting limits (RLs) specified by the Department or as specified by other approved test methods. If a non-detect analytical test result is below the respective RL, the concentration result shall be reported as <Y where Y is the detection limit achieved by the laboratory for each respective parameter. Reporting a value of <Y that is greater than an established RL is not acceptable and will be rejected by the Department. For mass, if the analytical result is reported as <Y or if a detectable result is less than a RL, report a <X lbs/day, where X is the parameter specific limitation established in the permit.

1. **Percent Removal** - The treatment facility shall maintain a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand for all flows receiving secondary treatment. The percent removal shall be based on monthly average concentration values. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility shall report "*NODI-9"* on the monthly Discharge Monitoring Report (DMR).

2. **Fecal coliform bacteria** - Limits and monitoring requirements are in effect on a year-round basis.

3. **Fecal coliform bacteria –** The monthly average limitation is a geometric mean limitation and results shall be reported as such.

SPECIAL CONDITIONS

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

Footnotes:

4. **Total residual chlorine (TRC)** – Limitations and monitoring requirements for TRC are applicable whenever elemental chlorine or chlorine based compounds are being utilized to disinfect the discharge(s). TRC shall be tested using Amperometric Titration or the DPD Spectrophotometric Method. The USEPA approved methods are found in Standard Methods for the Examination of Water and Waste Water, (most current approved edition), Method 4500-CL-E and Method 4500-CL-G or USEPA Manual of Methods of Analysis of Water and Wastes.

5. **Arsenic (Total)** – **Beginning upon issuance of this permit and lasting through a date on which the USEPA approves a test method for inorganic arsenic**, the permittee shall sample and analyze the discharge from the facility for total arsenic. The Department's most current reporting limit (RL) for total arsenic is 5 ug/L but may be subject to revision during the term of this permit. All detectable analytical test results shall be reported to the Department including results which are detected below the Department's most current RL at the time of sampling and reporting. Only the detectable results greater than the total arsenic threshold of 13 ug/L (See page 14 of the Fact Sheet attached to this permit) or the Department's RL at the time (whichever is higher) will be considered as a possible exceedence of the water quality criteria for inorganic arsenic. If a test result is determined to be a possible exceedence, the permittee shall submit a toxicity reduction evaluation (TRE) to the Department for review and approval within 45 days of receiving the test result of concern from the laboratory.

6. **Arsenic (Inorganic)** – The limitations and monitoring requirements for inorganic arsenic are not in effect until the USEPA approves of a test method for inorganic arsenic. See Special Condition H, *Schedule of Compliance – Inorganic Arsenic*, of this permit modification.

7. **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 1 % and 2% 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 50:1 and 102:1 respectively.

SPECIAL CONDITIONS

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

Footnotes:

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 WET testing at a minimum frequency of (1/Year) for both the mysid shrimp and the sea urchin. 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).

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 1% and 2%, 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 permit each time a WET test is performed.

8. **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. **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).

SPECIAL CONDITIONS

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

Footnotes:

9. **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 calendar quarter (1/Quarter). 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.

    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.

SPECIAL CONDITIONS

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 discharges 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 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) cannot be met by dissipation 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 under the direction of a person holding a minimum of a **Grade III** certificate [or Maine Professional Engineer (PE) 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 the contract operator.

SPECIAL CONDITIONS

E. 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 by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall include information on:

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

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

F. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the waste water collection and treatment system by a non-domestic source (user) shall not pass through or interfere with the operation of the treatment system.

G. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with: 1) the permittee's General Application for Waste Discharge Permit, accepted for processing on January 15, 2008; 2) the terms and conditions of this permit; and 3) only from Outfall #002. Discharges of wastewater from any other point source are not authorized under this permit, and shall be reported in accordance with Standard Condition B(5)(*Bypass*) of this permit.

SPECIAL CONDITIONS

H. SCHEDULE OF COMPLIANCE

Beginning upon issuance of this permit and lasting through a date on which the USEPA approves a test method for inorganic arsenic, the limitations and monitoring requirements for inorganic are not in effect. During this time frame, the permittee is required by Special Condition A, *Effluent Limitations and Monitoring Requirements*, of this permit to conduct 1/Quarter sampling and analysis for total arsenic.

Upon receiving written notification by the Department that a test method for inorganic arsenic has been approved by the USEPA, the limitations and monitoring requirements for inorganic arsenic become effective and enforceable and the permittee is relieved of their obligation to sample and analyze for total arsenic.

I. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to receive up to **3,000 gallons per day and 20,000 gallons per month** 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 the addition of septage cause or contribute to effluent quality violations. If such conditions do exist, the introduction of septage into the treatment process or soilds handling 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. The addition of septage into the treatment process or solids handling stream shall not cause the treatment facilities design capacity to be exceeded. If, for any reason, the treatment process or solids handling facilities become overloaded, introduction of septage into the treatment process or solids handling stream 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 but should be reported in the treatment facility’s influent flow.

SPECIAL CONDITIONS

J. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff shall 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 rainfall.

The plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events.

The permittee shall review their plan annually and record necessary changes to keep the plan up to date.

K. 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.

SPECIAL CONDITIONS

L. CHAPTER 530(2)(D)(4) CERTIFICATION

On or before December 31 of each year ***[PCS code 95799]*** the permittee is required to file a statement with the Department describing the following.

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

2. Changes in the operation of the treatment works that may increase the toxicity of the discharge; and;

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

Further, the Department may require that annual WET, analytical chemistry and or priority pollutant testing be re-instituted if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

M. 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 (13th) day of the month or hand-delivered to a Department Regional Office** such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the Department's compliance inspector (unless otherwise specified) at the following address:

Department of Environmental Protection
Southern Maine Regional Office
Bureau of Land and Water Quality
Division of Water Quality Management
312 Canco Road
Portland, Maine 04103

SPECIAL CONDITIONS

N. 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 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.

O. SEVERABILITY

In the event that any provision(s), or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **January 31, 2008**

PERMIT NUMBER: **ME0100986**
LICENSE NUMBER: **W000449-5L-G-R**

NAME AND ADDRESS OF APPLICANT:

QGUNQUIT SEWER DISTRICT
School Street, P.O. Box 934
Ogunguit, ME. 03907

COUNTY: **York County**

NAME AND ADDRESS WHERE DISCHARGE(S) OCCUR(S):

School Street
Ogunguit, ME. 03907

RECEIVING WATER(S)/CLASSIFICATION: **Atlantic Ocean/Class SB**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Philip Pickering, Supt.**
(207) 646-3271
e-mail: ogunquitsd@me@verizon.net

1. APPLICATION SUMMARY

a. Application: - The Ogunquit Sewer District (OSD) has applied to the Department for renewal of combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0100986/Maine Waste Discharge License (WDL) #W000449-5L-F-R (permit hereinafter which was issued by the Department on February 25, 2003 and is due to expire on February 25, 2008. The 2/25/03 permit authorized the discharge of up to a monthly average flow of 1.28 million gallons per day (MGD) of secondary treated sanitary waste waters from a publicly owned treatment works facility to the Atlantic Ocean, Class SB, in Ogunquit, Maine. See Attachment A of this Fact Sheet for a location map.

b. Modifications requested – The permittee has requested the Department establish a daily maximum water quality based concentration limit for TRC during the period October – March which is less stringent than the technology based TRC limits established between April – September of each year.

1. APPLICATION SUMMARY (cont'd)

c. Source Description: The waste water treatment facility was originally constructed in 1963 and currently serves a population of approximately 1,400 users in the winter and up to 50,000 users during the summer months. The treatment facility receives sanitary waste waters generated by residential and commercial entities within the District's boundaries and does not have any industrial users contributing more than 10% of the flow or pollutant loading to the collection and or waste water treatment facility.

The sanitary sewer collection system consists of approximately eleven (11) miles of pipe with twelve (12) pump stations. Pumping stations #1, #2 and #4 have stand-by generators with an automatic transfer switch. All pumping stations have manual power transfer switches for the use of the District's three (3) portable generators. All pumping stations are equipped with visual and audio alarms as well as radio communication to the treatment facility where two (redundant) telemetry notification systems are engaged. The collection system is completely separated from the storm water collection system and as a result there are no combined sewer overflow (CSO) points in the collection system. The facility is authorized to receive up to 3,000 gallons per day and 20,000 gallons per month of septage from local septage haulers. The facility maintains an up-to-date septage management that has reviewed and approved by the Department.

d. Waste Water Treatment: The facility provides a secondary level of treatment via an activated sludge system operated in an extended aeration mode from November through March of each year and in the conventional aeration mode from April through October of each year. The treatment process includes an influent flow meter, a bar screen, grit chamber, four aeration basins (totaling 532,000 gallons) with fine bubble diffused aeration, two secondary clarifiers (each 45 feet in diameter and 12 feet deep) and a serpentine chlorine contact tank with a volume of 66,000 gallons followed by a flow meter. Two of the aeration basins have been modified to incorporate selector technology that have created anoxic zones prior to aeration zones to alleviate operational problems with nitrification. The effluent is disinfected on a year-round basis with sodium hypochlorite and de-chlorinated with sodium bisulfite before discharge to the receiving waters. The waste water treatment facility is equipped with a 350-kilowatt generator that will enable the facility to maintain a secondary level of treatment in the event of a power outage. See Attachment B for a schematic of the waste water treatment facility. The treated effluent is conveyed to the Atlantic Ocean for discharge via a pipe measuring fourteen (14) inches in diameter extended offshore approximately 1,950 feet. The end of the pipe is fitted with a 3-port diffuser to enhance mixing of the treated effluent with the receiving water. The facility has been disinfecting the discharge on a year-round basis since 1997 due to the potential for the harvesting of surf clams. The State's Department of Marine Resources again recommends OSD disinfect on a year-round basis to protect a growing population of surfers in the winter months.

1. APPLICATION SUMMARY (cont'd)

Sludge handling equipment at the facility includes three aerobic digestors with a total holding capacity of 320,000 gallons. The sludge is de-watered via a two-meter belt filter press and is currently being hauled to the Soil Preparation Inc. facility in Plymouth, Maine .

2. PERMIT SUMMARY

a. Terms and Conditions: This permitting action is similar to the 2/25/03 permitting action in that it is;

1. Carrying forward the monthly average flow limit of 1.28 MGD.

2. Carrying forward the monthly average, weekly average and daily maximum technology based mass and concentration limits for biochemical oxygen demand (BOD_5) and total suspended solids (TSS).

3. Carrying forward the monthly average and daily maximum water quality based limits for fecal coliform bacteria and the requirement for year-round disinfection.

4. Carrying forward whole effluent toxicity (WET) and chemical specific (priority pollutant) testing pursuant to Department rule Chapter 530, *Surface Water Toxics Control Program.*

5. Carrying forward the daily maximum technology based limit of 0.3 ml/L for settleable solids.

6. Carrying forward the monthly average and daily maximum technology based concentration limits of concentration limit 0.1 mg/L and 0.3 mg/L respectively for total residual chlorine.

7. Carrying forward the daily maximum technology based pH range limit of 6.0 – 9.0 standard units.

8. Carrying forward a requirement to maintain an up-to-date Wet Weather Flow Management Plan and an up-to-date Operations and Maintenance Plan for the facility.

This permit is different than the 2/25/03 permit in that;

9. It establishes water quality based mass and concentration limits for inorganic arsenic.

10. It establishes a daily maximum water quality based concentration limit for TRC during the period October – March.

2. PERMIT SUMMARY (cont'd)

b. History: Regulatory actions for the OSD facility include, but are not limited to;

September 30, 1991 – The EPA issued a renewal of NPDES permit #ME0100986 for a five-year term.
July 15, 1993 – The EPA issued a modification of NPDES permit #ME0100986. The modification reduce whole effluent toxicity (WET) testing from 1/Quarter to 1/Year and reduced the monitoring frequency for enterococci and fecal coliform bacteria from 1/Day to 3/Week between October 1st and March 31st.

September 30, 1996 – The EPA issued a renewal of NPDES permit #ME0100986 for a five-year term.

March 23, 1998 – The Department issued WDL #W000449-46-D-R for a five-year term.

May 23, 2000 – The Department administratively modified the WDL for the OSD facility by establishing interim monthly average and daily maximum concentration limits for mercury.

February 25, 2003 – The Department issued combination MEPDES permit #ME0100986/WDL #W000449-5L-F-R for a five-year term.

April 20, 2006 - The Department issued a modification of the 2/25/03 MEPDES permit by incorporating WET and chemical specific testing requirements pursuant to Department rule Chapter 530, promulgated on October 12, 2005.

January 10, 2008 – The OSD filed a timely and complete application with the Department to renew the MEPDES permit for the waste water treatment facility.

3. CONDITIONS OF PERMITS

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 (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER STANDARDS

Maine law 38 M.R.S.A., §469(8) classifies the Atlantic Ocean at the point of discharge as a Class SB waterway. Maine law, 38 M.R.S.A., §465-B(2) describes the standards for classification of Class SB waterways.

5. EXISTING WATER QUALITY CONDITIONS

The 2006 Integrated Water Quality Monitoring and Assessment Report published by the Department pursuant to Section 305(b) of the Federal Water Pollution Control Act lists the Ogunquit River – Oqunquit and Moody Beaches as marine waters with insufficient data or information to determine attainment of water quality standards. Attainment in this context is in regard to the designated use of harvesting of shellfish. Currently, DMR shellfish harvesting Area #6 - Ogunquit River to Webhannet River (Ogunquit and Wells) is closed to the harvesting of shellfish due to insufficient (limited) ambient water quality data to meet the standards in the National Shellfish Sanitation Program. Therefore, the areas remain closed. Compliance with the fecal coliform bacteria limits in this permitting action ensure that the discharge from the OSD will not cause or contribute to the shellfish harvesting closure. See Attachment C of this Fact Sheet for a map of Area #6.

The 2006 305(b) report also lists all estuarine and marine waters in a category entitled, *Category 5-D: Estuarine and Marine Waters Impaired by Legacy Pollutants*. The waters are listed as partially supporting fishing ("shellfish consumption) due to elevated levels of PCBs and other persistent, bioaccumulating substances in lobster tomally. The Department is not aware of any PCBs or persistent, bioaccumulating substances (other than mercury) being discharged from the OSD waste water treatment that cause or contribute to the waterbodies impairment. For a discussion on mercury, see section 6(i) of this Fact Sheet.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

a. Flow: The previous permitting action established a monthly average flow limitation of 1.28 MGD that is being carried forward in this permitting action as it remains representative of the monthly average design capacity of the facility.

A review of the DMR data for the period January 2005 – September 2007 indicates the following:

Flow

Value	Limit (MGD)	Range (MGD)	Mean (MGD)
Monthly Average	1.28	0.293 – 1.288	0.686
Daily Maximum	Report	0.354 – 3.478	1.14

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

b. Dilution Factors - Department Regulation Chapter 530, *Surface Water Toxics Control Program*, §4(a)(2) 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. Based on the location and configuration of the outfall pipe, the Department has determined that at the full permitted flow of 1.28 MGD, the discharge from the OSD waste water treatment facility will be diluted by the following factors:

Acute = 50:1 Chronic = 102:1 Harmonic mean (1) = 306:1

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.

c. Biochemical Oxygen Demand (BOD5) & Total Suspended Solids (TSS): - The previous permitting action established monthly and weekly average BOD5 and TSS concentration limits of 30 mg/L and 45 mg/L respectively, that were based on secondary treatment requirements of the Clean Water Act of 1977 §301(b)(1)(B) as defined in 40 CFR 133.102 and Department rule Chapter 525(3)(III). The maximum daily BOD5 and TSS concentration limits of 50 mg/L were based on a Department best professional judgment of best practicable treatment (BPT). All three concentration limits are being carried forward in this permitting action. As for mass limitations, the previous permitting action established monthly average, weekly average and daily maximum technology based mass limitations that are being carried forward in this permitting action and are based on a monthly average limit of 1.28 MGD. The mass limits were derived as follows:

Monthly average: (1.28 MGD)(8.34)(30 mg/L) = 320 lbs/day
Weekly average: (1.28 MGD)(8.34)(45 mg/L) = 480 lbs/day
Daily Maximum: (1.28 MGD)(8.34) (50 mg/L) = 534 lbs/day

This permitting action also establishes a requirement of 85% removal for BOD and TSS pursuant to Department rule Chapter 525(3)(III)(a&b)(3).

Monitoring frequencies for BOD and TSS of 2/week established in the previous licensing action are being carried forward in this permitting action and are based on Department policy for facilities with a monthly average flow greater than 1.0 MGD but less than 5.0 MGD.

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

A review of the DMR data for the period January 2005 – September 2007 indicates the monthly average and daily maximum mass and concentration values have been reported as follows:

BOD Mass

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	320	14 – 150	39
Daily Maximum	534	25 – 263	80

BOD Concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	2 – 21	6
Daily Maximum	50	4 – 33	12

TSS mass

Value	Limit (lbs/day)	Range (lbs/day)	Average (lbs/day)
Monthly Average	390	5 – 140	29
Daily Maximum	650	10 – 327	84

TSS concentration

Value	Limit (mg/L)	Range (mg/L)	Average (mg/L)
Monthly Average	30	2 - 21	5
Daily Maximum	50	3 - 47	13

d. Settleable Solids – The previous permitting established a daily maximum concentration limit of 0.3 ml/L for settleable solids and is considered by the Department as BPT for secondary treated waste waters. A review of the DMR data for the period January 2005 – September 2007 indicates the daily maximum concentration values reported have been reported as 0.0 m/L for the entire time frame. The previous permitting action established a 1/Day monitoring requirement that is being reduced to 5/Week based on the historic DMR data.

e. Fecal coliform bacteria – The previous permitting action established a year-round monthly average and daily maximum limits of 15 colonies/100 ml and 50 colonies/100 ml respectively, that are consistent with the National Shellfish Sanitation Program. The limits and a 2/Week monitoring requirement are being carried forward in this permitting action. A review of the DMR data for the period January 2005 – September 2007 indicates values have been reported as follows:

Fecal coliform bacteria

Value	Limit (col/100 ml)	Range (col/100 ml)	Mean (col/100 ml)
Monthly Average	15	1 – 18	4
Daily Maximum	50	1 - 300	24

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

f. Total Residual Chlorine - The previous licensing action established monthly average and daily maximum BPT limits of 0.1 mg/L and 0.3 mg/L respectively. Limits on total residual chlorine (TRC) are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. Permitting actions by the Department impose the more stringent of water quality or technology based limits. End-of-pipe water quality based concentration thresholds may be calculated as follows:

Parameter	Acute Criteria	Chronic Criteria	Acute Dilution	Chronic Dilution	Acute Limit	Chronic Limit
Chlorine	13 ug/L	7.5 ug/L	50:1	102:1	0.65 mg/L	0.76 mg/L

Example calculation: Acute – 0.013 mg/L (50) = 0.65 mg/L

The Department has established a daily maximum best practicable treatment (BPT) limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine based compounds unless the calculated acute water quality based threshold is lower than 1.0 mg/L. For facilities that need to de-chlorinate the discharge to meet water quality based thresholds, the Department has established daily maximum and monthly average best practicable treatment limits of 0.3 mg/L and 0.1 mg/L respectively. Because the facility needs to de-chlorinate the discharge from April – September of each year to meet the calculated water quality thresholds, this permitting action is carrying forward the daily maximum and monthly average BPT limitations of 0.3 mg/L and 0.1 mg/L respectively and a 1/Day monitoring requirement. For the period October – March when influent flow to the treatment facility is significantly lower than April – September (tourist season) the permittee has demonstrated through testing that it can meet both the fecal coliform bacteria and water quality based TRC limits without utilizing dechlorination compounds. As a result, it is requesting the Department establish a daily maximum water quality based limit of 0.65 mg/L for October – March. The Department has no objection and has therefore established said water quality based limit with a 1/Day monitoring requirement. Should future testing indicate the permittee is unable to consistently meet the fecal coliform bacteria limits or daily maximum water quality based TRC limit, the Department reserves the right (pursuant to Special Condition N of this permit) to require the permittee to return to year-round dechlorination, thus be required to the meet the BPT limits of 0.3 mg/L as a daily maximum and 0.1 mg/L as a monthly average.

A review of the DMR data for the period January 2005 – September 2007 indicates the monthly average and daily maximum concentration values have been reported as follows:

Total residual chlorine

Value	Limit (mg/L)	Range (mg/L)	Mean (mg/L)
Monthly Average	0.08	0.0 – 0.03	0.01
Daily Maximum	0.1	0.0 – 0.13	0.05

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

g. pH – The previous permitting action establishing a pH range limit of 6.0 –9.0 standard units pursuant to a Department rule found at Chapter 525(3)(III)(c) and are considered BPT. The limits and a monitoring frequency of 1/Day are being carried forward in this permitting action. A review of the DMR data for the period January 2005 – September 2007 indicates the pH range limitation has never been exceeded and therefore the monitoring frequency is being reduced from 1/Day to 5/Week in this permitting action.

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

WET, priority pollutant and analytical chemistry testing as required by Chapter 530 is included in this permit in order to fully characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

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

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

Level I – chronic dilution factor of <20:1.
Level II – chronic dilution factor of $\geq$20:1 but <100:1.
Level III – chronic dilution factor $\geq$100:1 but <500:1 or >500:1 and Q $\geq$1.0 MGD.
Level IV – chronic dilution >500:1 and Q $\leq$1.0 MGD.

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

Department rule Chapter 530 (2)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the permittee's facility falls into the Level III frequency category as the facility has a chronic dilution factor ≥100:1 but <500:1. Chapter 530(2)(D)(1) specifies that default surveillance and screening level testing requirements are as follows:

Screening level testing

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

Surveillance level testing

Level	WET Testing	Priority pollutant testing	Analytical chemistry
III	1 per year	Not required	1 per year

See Attachment D of this Fact Sheet for a summary of the WET test results and Attachment E of this Fact Sheet for a summary of the chemical-specific test results submitted to the Department to date.

Chapter 530(2)(D)(3)(d) states in part that for Level III facilities *"**…**may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E)."*

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."*

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

a. WET test evaluation

On December 6, 2007, 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 does not have any WET test results for the mysid shrimp or sea urchin that exceed or have a reasonable potential to exceed the critical acute or chronic water quality thresholds of 1.0% and 2.0% respectively. The critical thresholds are calculated as the mathematical inverse of the applicable dilution factors of 50:1 as an acute and 102:1 as a chronic.

Based on the results of the 12/6/07 statistical evaluation, the permittee qualifies for the Chapter 530(2)(D)(3)(d) testing reduction for WET test species. Therefore, this permit action establishes waives surveillance level testing for the first four years of the term of the permit.

Chapter 530 §(2)(D) states:

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

(a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
(b) Changes in the operation of the treatment works that may increase the toxicity of the discharge; and
(c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

Special Condition L, *Chapter 530 §(2)(D)(4) Certification,* of this permitting action requires the permittee to file an annual certification with the Department.

Department rule Chapter 530 (2)(D)(1) specifies that screening level testing is to be established as follows:

Beginning 12 months prior to and lasting through permit expiration and every five years thereafter.

Level	WET Testing
III	1 per year for the mysid shrimp 1 per year for the sea urchin

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

b. Analytical chemistry & priority pollutant testing 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 no information on the background levels of metals in the water column of the Atlantic Ocean in the vicinity of the Ogunquit outfall. 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)(E) states *"... that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action."*

As with WET test results, on 12/6/07, 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 one test result of 5.0 ug/L (7/28/06) for total arsenic has a reasonable potential to exceed the human health criteria (organisms only) of 0.028 ug/L.

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."* Therefore, this permit establishes monthly average (chronic) end-of-pipe (EOP) mass and concentrations limits for inorganic arsenic. The derivation for these limits is as follows:

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

Arsenic (Inorganic)

HH AWQC (organisms only) = 0.028 ug/L
Harmonic mean dilution factor = 306:1

EOP concentration = [Dilution factor x 0.75 x AWQC] + [0.25 x AWQC]
EOP = [306 x 0.75 x 0.028 ug/L] + [0.25 x 0.028 ug/L] = 6.4 ug/L

Based on a permitted flow of 1.28 MGD, EOP mass limits are as follows:

Parameter	Calculated EOP Concentrations	Month Avg. Mass Limit
Inorganic Arsenic	6.4 ug/L	0.025 lbs/day

Ex. Calculation: Inorganic Arsenic - $\frac{(6.4 \text{ ug/L})(8.34)(1.28 \text{ MGD})}{1000 \text{ ug/mg}}$ = 0.068 lbs/day

Department rule Chapter 530 (C)(6) states:

All chemical testing must be carried out by approved methods that permit detection of a pollutant at existing levels in the discharge or that achieve detection levels as specified by the Department. When chemical testing results are reported as less then, or detected below the Department's specified detection limits, those results will be considered as not being present for the purposes of determining exceedences of water quality criteria.

The USEPA has not approved a test method for inorganic arsenic as of the date of issuance of this permit. Therefore, there is no way for the permittee to formally demonstrate compliance with the monthly average water quality based mass and concentration limits for inorganic arsenic established in this permitting action. Therefore, beginning upon issuance of this permit and lasting through the date in which the USEPA approves a test method for inorganic arsenic the permittee is being required to monitor for total arsenic. Once a test method is approved, the Department will notify the permittee in writing and the limitations and monitoring requirements for inorganic arsenic become effective thereafter.

As of the date of this permitting action, the Department has limited data on the percentage of inorganic arsenic (approximately 50%) in total arsenic test results. Based on a literature search conducted by the Department, the inorganic fraction can range from 1% - 99% depending on the source of the arsenic. Generally speaking, ground water supplies derived from bedrockwells will likely tend to have higher fractions of inorganic arsenic (As^{+3}-arsentite and/or As^{+5}- arsenate) than one may find in a food processing facility where the inorganic fraction is low and the organic fraction (arsenobetaine, arsenoribosides) is high. Until the Department and the regulated community in Maine

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

develop a larger database to establish statistically defensible ratios of inorganic and organic fractions in total arsenic test results, the Department is making a rebuttable presumption that the effluent contains a ratio of 50% inorganic arsenic and 50% organic arsenic in total arsenic results.

Being that the only approved test methods for compliance with arsenic limits established in permits is for total arsenic, the Department converted the water quality based end-of pipe monthly average concentration value of 6.4 ug/L for inorganic arsenic calculated on page 13 of this Fact Sheet into an equivalent total arsenic threshold (assuming 50% of the total arsenic is inorganic arsenic). This results in a total arsenic end-of-pipe monthly average concentration threshold of 13 ug/L. The calculation is as follows:

$$\frac{\text{6.4 ug/L inorganic arsenic}}{\text{0.5 ug/L inorganic arsenic/ 1.0 ug/L total arsenic}} = \text{13 ug/L total arsenic}$$

Therefore, a total arsenic value greater than 13 ug/L is potentially exceeding the water quality based end-of pipe monthly average concentration value of 6.4 ug/L for inorganic arsenic. Only the results greater than the total arsenic threshold of 13 ug/L will be considered a potential exceedence of the inorganic limit of 6.4 ug/L.

If a test result is determined to be a potential exceedence, the permittee shall submit a toxicity reduction evaluation (TRE) to the Department for review and approval within 45 days of receiving the test result of concern from the laboratory. Contact the Department's compliance inspector for a copy of the Department's December 2007 guidance on conducting a TRE for arsenic.

Maine law, 38 M.R.S.A., §414-A(2), Schedules of Compliance states "*Within the terms and conditions of a license, the department may establish a schedule of compliance for a final effluent limitation based on a water quality standard adopted after July 1, 1977. When a final effluent limitation is based on new or more stringent technology-based treatment requirements, the department may establish a schedule of compliance consistent with the time limitations permitted for compliance under the Federal Water Pollution Control Act, Public Law 92-500, as amended. A schedule of compliance may include interim and final dates for attainment of specific standards necessary to carry out the purposes of this subchapter and must be as short as possible, based on consideration*

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

of the technological, economic and environmental impact of the steps necessary to attain those standards." Special Condition H, *Schedule of Compliance*, of this permit modification establishes a schedule as follows:

> *Beginning upon issuance of this permit modification and lasting through a date on which the USEPA approves a test method for inorganic arsenic, the limitations and monitoring requirements for inorganic are not in effect. During this time frame, the permittee is required by Special Condition A, Effluent Limitations and Monitoring Requirements, of this permit to conduct 1/Quarter sampling and analysis for total arsenic.*
>
> *Upon receiving written notification by the Department that a test method for inorganic arsenic has been approved by the USEPA, the limitations and monitoring requirements for inorganic arsenic become effective and enforceable and the permittee is relieved of their obligation to sample and analyze for total arsenic.*

The schedule of compliance reserves the final date for compliance with the limit for inorganic arsenic. This reservation stems from the fact the EPA has no schedule for approving a test method for inorganic arsenic nor does the Department have any authority to require the EPA to do so. Therefore, the Department considers the aforementioned schedule for inorganic arsenic to be as short as possible given the technological (or lack thereof) issue of not being able to sample and analyze for inorganic arsenic with an approved method.

Department rule Chapter 523, Waste Discharge License Conditions, § Section 7, *Schedules of Compliance* sub-§3, *Interim dates*, states in part, "*if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.*

(i) The time between interim dates shall not exceed 1 year, except that in the case of a schedule for compliance with standards for sewage sludge use and disposal, the time between interim dates shall not exceed six months.

(ii) If the time necessary for completion of any interim requirement (such as the construction of a control facility) is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

Special Condition A, *Effluent Limitations and Monitoring Requirements*, of this permit requires that beginning upon issuance of this permit modification and lasting through USEPA approval of a test method for inorganic arsenic, the permittee shall conduct 1/Quarter monitoring for total arsenic. Should the test method approval for inorganic arsenic extend more than one year from the date of the issuance of this permit the

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

sampling and analysis for total arsenic will serve to satisfy the interim requirements specified by Department rule, Chapter 523, *Waste Discharge License Conditions*, Section 7, *Schedules of Compliance*, Sub-section 3, *Interim dates.*

> 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."*

It is noted the calculations for establishing limitations for inorganic arsenic on page 13 do not increase the EOP concentration for inorganic arsenic by a factor of 1.5 due to uncertainty of the ratio between organic and inorganic fractions of total arsenic. However, the Department has given the permittee some flexibility by evaluating possible exceeedences using the rebuttable presumption that the effluent contains a ratio of 50% inorganic arsenic and 50% organic arsenic in total arsenic results. In other words, the equivalent total arsenic concentration threshold has been increased by a factor of 2.0. Refer to the discussion and calculations on pages 13 and 14 of this Fact Sheet.

Chapter 530 does not establish specific monitoring frequencies for parameters that exceed or have a reasonable to exceed AWQC. This permitting action is establishing the monitoring frequencies for arsenic based on a best professional judgment given the timing, frequency and severity of the exceedence or reasonable potential to exceed AWQC. To be consistent with the default screening level monitoring requirements in Chapter 530, the Department is establishing a monitoring frequency of 1/Quarter for total arsenic.

As for the remaining parameters, monitoring frequencies for priority pollutant and analytical testing established in this permitting action are based on the Chapter 530 rule. Chapter 530(2)(D)(3)(d) states in part that for Level III facilities *"**…**may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E)."* Based on the results of the 12/6/07 statistical evaluation, the permittee qualifies for the testing waiver. Therefore, this permitting action does not establish surveillance level priority pollutant and analytical testing (with the exception of arsenic) for the first four years of the term of this permit.

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

Department rule Chapter 530 (2)(D)(1) specifies that screening level testing is to be establishes for analytical chemistry and priority pollutant testing requirements as follows:

> Beginning 12 months prior to and lasting through permit expiration and every five years thereafter.

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

As with WET testing, Chapter 530 (2)(D) requires an annual certification to qualify for reduced testing. Special Condition L, *Chapter 530 (2)(D)(4) Certification*, of this permitting action requires the permittee to file an annual certification with the Department.

i. Mercury –On May 23, 2000, pursuant to *Certain deposits and discharges prohibited*, 38 M.R.S.A. § 420 and *Waste discharge licenses*, 38 M.R.S.A. § 413 and *Interim Effluent Limitations and Controls for the Discharge of Mercury*, 06-096 CMR 519 (last amended October 6, 2001), the Department issued a *Notice of Interim Limits for the Discharge of Mercury* to the permittee thereby administratively modifying WDL #W000449-5L-F-R by establishing interim monthly average and daily maximum effluent concentration limits of 19.3 parts per trillion (ppt) and 29.0 ppt, respectively, and a minimum monitoring frequency requirement of four (4) tests per year for mercury. It is noted the limitations have not been incorporated into Special Condition A, *Effluent Limitations And Monitoring Requirements*, of this permit as limitations and monitoring frequencies are regulated separately through 38 M.R.S.A.§ 413 and 06-096 CMR 519. However, the interim limitations remain in effect and enforceable and any modifications to the limits and or monitoring requirements will be formalized outside of this permitting document.

Maine law 38 M.R.S.A., §420 1-B,(B)(1) states that a facility is not in violation of the ambient water quality criteria for mercury if the facility is in compliance with an interim discharge limit established by the Department pursuant to section 413, subsection 11. A review of the Department's data base for the period April 2001 – November 2007 indicates mercury test results have ranged from 1.7 ppt to 34 ppt with an arithmetic mean (n=29) of 5.8 ppt.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has made a determination based on a best professional judgment that 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 SB classification.

8. PUBLIC COMMENTS

Public notice of this application was made in the York County Coast Star newspaper on or about January 10, 2008. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. DEPARTMENT CONTACTS

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

Gregg Wood
Division of Water Quality Management
Bureau of 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

10. RESPONSE TO COMMENTS

During the period of January 31, 2008, through the issuance date of the permit/license, the Department solicited comments on the proposed draft permit/license to be issued for the discharge(s) from the Ogunquit facility. The Department did not receive comments from the permittee, state or federal agencies or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.