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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1 1 CONGRESS STREET, SUITE 1100 BOSTON, MASSACHUSETTS 02114-2023 Jenu. 709, 2007

CERTIFIED MAIL - RETURN RECEIPT REQUESTED January 4, 2007

Michael Stankovich Director of Public Works Town of North Attleborough 240 Smith Street North Attleborough, MA 02760

Re: NPDES No. MA0101036

Dear Mr. Stankovich:

Enclosed is your final National Pollutant Discharge Elimination System (NPDES) permit issued pursuant to the Clean Water Act (the "Federal Act"), as amended, and the Massachusetts Clean Waters Act (the "State Act"), 21 M.G.L. §§43-45, as amended. The Environmental Permit Regulations, at 40 C.F.R. §124.15, 48 Fed. Reg. 14271 (April 1, 1983), require this permit to become effective on the date specified in the permit.

Also enclosed is a copy of the Massachusetts State Water Quality Certification for your final permit, the Agency's response to the comments received on the draft permit, and information relative to appeals and stays of NPDES permits. Should you desire to contest any provision of the permit, your petition should be submitted to the Environmental Appeals Board as outlined in the enclosure and a similar request should also be filed with the Director of the Office of Watershed Management in accordance with the provisions of the Massachusetts Administrative Procedures Act, the Division's Rules for the Conduct of Adjudicatory Proceedings and the Timely Action Schedule and Fee Provisions (see enclosure).

Should you have any questions concerning the permit, feel free to contact David Pincumbe at 617/918-1695.

Sincerely.

Roger Janson, Manager

Municipal Permits Branch

Enclosures

cc: MADEP, Division of Watershed Management

All Interested Parties



MITT ROMNEY Governor

KERRY HEALEY Lieutenant Governor

COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

DEPARTMENT OF ENVIRONMENTAL PROTECTION

ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

ROBERT W. GOLLEDGE, Jr. Secretary

> ARLEEN O'DONNELL Commissioner

December 28, 2006

Brian Pitt NPDES Municipal Permits Branch USEPA – New England 1 Congress Street, Suite 1100 Boston, MA 02114-2023

Re:

Water Quality Certification NPDES Permit MA0101036

Town of North Attleborough Wastewater Treatment Facility

Dear Mr. Pitt:

Your office has requested the Massachusetts Department of Environmental Protection to issue a water quality certification pursuant to Section 401(a) of the Federal Clean Water Act ("the Act") and 40 CFR 124.53 for the above referenced NPDES permit. The Department has reviewed the proposed permit and has determined that the conditions of the permit will achieve compliance with sections 208(e), 301, 302, 303, 306, and 307 of the Federal Act, and with the provisions of the Massachusetts Clean Waters Act, M.G.L. c. 21, ss. 26-53, and regulations promulgated thereunder. The permit conditions are sufficient to comply with the antidegradation provisions of the Massachusetts Surface Water Quality Standards [314 CMR 4.04] and the policy [October 6, 1993] implementing those provisions.

The Department notes that the Total Nitrogen limits and reporting conditions [page 3 of 13 and footnote #10] are requirements of the U.S Environmental Protection Agency only as said limits and conditions are not necessary to meet Massachusetts Water Quality Standards.

The Department hereby certifies the referenced permit.

Sincerely,

Glenn Haas, Director

Division of Watershed Management

Bureau of Resource Protection

cc:

Paul Hogan

file

4460 2ES6 TODO 029T 5002

ETCO 26516 TOOD 0297 5002

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA") and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53).

Board of Public Works 240 Smith Street North Attleborough, MA 02760

is authorized to discharge from the facility located at:

North Attleborough WWTF Cedar Road North Attleborough, MA 02760

to the receiving water named: Ten Mile River

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

The Town of Plainville is included as a co-permittee for Section D (Unauthorized Discharges), Section E (Operation and Maintenance), and Section F (Alternate Power Source). The responsible Town Department is,

Board of Sewer Commissioners 171 East Bacon Street Plainville, MA 02762

This permit shall become effective (See ** below)

This permit and the authorization to discharge expire at midnight, five (5) years from the issuance date. This permit supersedes the permit issued September 30, 1999.

This permit consists of 13 pages in Part I including effluent limitations, monitoring requirements, etc., Attachments A, B, and C, and 35 pages in Part II including General Conditions and Definitions.

Signed this day of

Director

Office of Ecosystem Protection Environmental Protection Agency

Region 1

Boston, Massachusetts

Director

Division of Watershed Management Department of Environmental Protection Commonwealth of Massachusetts

Boston, Massachusetts

** This permit will become effective on the date of signature if no comments are received during public notice. If comments are received during public notice, this permit will become effective 60 days after signature.

PARTI

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge from outfall senal number 001 treated wastewater.

Such discharges shall be limited and monitored by the permittee as specified below:	ions Monitoring Requirements	Sample Type	Continuous	24-Hr. Comp. 3	24-Hr. Comp. ³	24-Hr. Comp. ³	24-Hr. Comp. ³	Grab	Grab		24-Hr. Comp. 3	•	24-Hr. Comp. ³		24-Hr. Comp. ³
		Measurement Frequency	Daily	3/Week	3/Week	3/Week	3/Week	3/Week	3/Day		3/Week	-	2/Week		2/Week
		Maximum Dail <u>y</u>	Report	. 15	30	15	30	400	19	. •	Report	ı	Report		Report
itored by the p	Discharge Limitations	Average Weekly	ţ	10	25	10	25	1			1		}		1
mited and monit	Dis	Average <u>Monthly</u>	4.61	5	15	7	15	200	. 11		0.2		1.0		Report
Such discharges shall be li	Effluent Characteristics		Flow, MGD ¹ BOD, mg/l ²	(May I - October 31)	(November 1 - April 30) TSS, mg/l ²	(May I - October 31)	(November 1 - April 30)	Fecal Coliforn, CFU/100 ml 45	Total Chlorine Residual, ug/16.7	Total Phosphorus, mg/18	(April 1 - October 31)	Total Phosphorus, mg/l 9	(November 1 - March 31)	Dissolved Ortho Phosphorus 9	(November 1 - March 31)

***	Sample <u>Type</u>	24-Hr. Comp. ³ 24-Hr. Comp. ³	24-Hr. Comp. ³	24-Hr. Comp. ³	24-Hr. Comp. ³ Grab	Grab 24-Hr. Comp. ³	24-Hr. Comp. 3	24-Hr. Comp.	24-Hr. Comp. ³ 24-Hr. Comp. ³	24 Hr. Comp. ³
Monitoring Requirement	Measurement Frequency	2/Week 2				. 45			1/Month	4/Year
Discharge Limitations	Maximum <u>Daily</u>	2		Report	Report	14.8	Report	127	2.2 22	
	Average Weekly	1.5		-	 See Part I.A.1.b.	See Part I.A.1.c.	1			LC50> 100%
	Average Monthly	ن ٦	7 (0.8	30T		3.4	92 127	0.3 5.0	12,13,14
Effluent Characteristics		Arrmonia-Nitrogen, mg/l (May 1- May 31) (June 1 - October 31)	(November 1 - November 30)	Total Nitrogen, mg/l 10 (May 1 - October 31)	(November 1 - April 30)	Dissolved Oxygen, mg/l 4	Lead, Total, ug/l'i	Aluminum, 1 ofal, ug/l Zinc, Total, ug/l "	Cadmium, ug/l '' Cyanide, ug/l ''	Whole Effluent Toxicity Testing

program shall be developed in which samples are taken at the same location, same time and same days of every month. Any deviations from submitted to EPA. In addition, all samples shall be analyzed using the analytical methods found in 40 CFR §136, or alternative methods All sampling shall be representative of the effluent that is discharged through outfall 001 to the Ten Mile River. A routine sampling the routine sampling program shall be documented in correspondence appended to the applicable discharge monitoring report that is approved by EPA in accordance with the procedures in 40 CFR §136.

Footnotes:

- 1. The flow limit is a monthly average. The permittee shall report the average and maximum daily flows for each month.
- 2. Sampling required for influent and effluent.
- 3. A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during one working day, either collected at equal intervals and combined proportional to flow or continuously collected proportionally to flow.
- 4. Required for state certification. Sampling for dissolved oxygen shall be conducted in the early morning (i.e., prior to 8 am). The permittee shall document in correspondence appended to applicable discharge monitoring reports where this timing is not practicable.
- 5. Fecal coliform discharges shall not exceed a monthly geometric mean of 200 colony forming units (cfu) per 100 ml, nor shall they exceed 400 cfu per 100 ml as a daily maximum. This monitoring shall be conducted as close in time as possible with the TRC sampling.
- 6. The minimum level (ML) for total residual chlorine is defined as 20 ug/l. This value is the minimum level for chlorine using EPA approved methods found in the most currently approved version of Standard Methods for the Examination of Water and Wastewater, Method 4500 CL-E and G, or USEPA Manual of Methods of Analysis of Water and Wastes, Method 330.5. One of these methods must be used to determine total residual chlorine. For effluent limitations less than 20 ug/l, compliance/non-compliance will be determined based on the ML. Sample results of 20 ug/l or less shall be reported as zero on the discharge monitoring report.

The monthly DMR shall include an attachment documenting the individual grab sample results for each day, including the date and time of each sample, and a summary of any operational modifications implemented in response to sample results. All test results shall be used in the calculation and reporting of the monthly average and maximum daily data submitted on the DMR (see Part II. Section D.1.d.(2)).

- 7. Chlorination and dechlorination systems shall include an alarm system for indicating system interruptions or malfunctions. Any interruption or malfunction of the chlorine dosing system that may have resulted in levels of chlorine that were inadequate for achieving effective disinfection or interruptions or malfunctions of the dechlorination system that may have resulted in excessive levels of chlorine in the final effluent shall be reported with the monthly DMRs. The report shall include the date and time of the interruption or malfunction, the nature of the problem, and the estimated amount of time that the reduced levels of chlorine or dechlorination chemicals occurred.
- 8. Consistent with Section B.1 of Part II of the Permit, the Permittee shall properly operate and maintain the phosphorus removal facilities in order to obtain the lowest effluent concentration possible.

- 9. The Permittee shall comply with the 1.0 mg/l monthly average total phosphorus limit within one year of the effective date of the permit. The maximum daily concentration value reported for dissolved ortho phosphorus shall be the value from the same day that the maximum daily total phosphorus concentration was measured.
- 10. This permit limit is a requirement of the U. S. Environmental Protection Agency (EPA) permit and is not a requirement of the Massachusetts Department of Environmental Protection (MassDEP) permit. Total Nitrogen is the sum of TKN, NO₂, and NO₃. The permittee shall operate the treatment facility to reduce the discharge of total nitrogen during the months of November April to the maximum extent possible, using all available treatment equipment in place at the facility. The addition of a carbon source that may be necessary in order to meet the total nitrogen limit during the months of May October is not required during the months of November April.
- 11. Total recoverable lead, copper, and cadmium shall be measured using the Furnace Atomic Absorption method and total cyanide shall be measured using the Flame Atomic Absorption method. The MLs for lead, copper, cadmium, and cyanide, respectively, are 3 ug/l, 3 ug/l, 0.5 ug/l, and 10 ug/l. Any effluent value which is below its respective ML shall be reported as zero.
 - Total recoverable values of all other metals may be measured using either the Inductively Coupled Plasma ICP method or the Furnace AA method.
- 12. The permittee shall conduct chronic (and modified acute) toxicity tests four times per year. The chronic test may be used to calculate the acute LC₅₀ at the 48 hour exposure interval. The permittee shall test the daphnid, <u>Ceriodaphnia dubia</u>, only. Toxicity test samples shall be collected during the second week of the months of February, May, August and November. The test results shall be submitted by the last day of the month following the completion of the test. The results are due by March 31st, June 30th, September 30th, and December 31st respectively. The tests must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit.

Test Dates Second Week in	Submit Results By:	Test Species	Acute Limit LC ₅₀	Chronic Limit C-NOEC
February May August	March 31 st June 30 th September 30 th	Ceriodaphnia dubia (daphnid)	≥ 100%	≥ 94%
November	December 31 st	See Attachment A		

If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlined in Attachment A Section IV., DILUTION WATER in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in Attachment A, EPA-New England has developed a Self-Implementing Alternative Dilution Water Guidance document (called "Guidance Document") which may be used to obtain automatic approval of an alternate dilution

water, including the appropriate species for use with that water. If this Guidance document is revoked, the permittee shall revert to obtaining approval as outlined in Attachment A. The "Guidance Document" has been sent to all permittees with their annual set of DMRs and Revised Updated Instructions for Completing EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this "Guidance Document" will be transmitted to the permittees as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in Attachment A.

- 13. The LC₅₀ is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.
- 14. C-NOEC (chronic-no observed effect concentration) is defined as the highest concentration of toxicant or effluent to which organisms are exposed in a life cycle or partial life cycle test which causes no adverse effect on growth, survival, or reproduction at a specific time of observation as determined from hypothesis testing where the test results exhibit a linear dose-response relationship. However, where the test results do not exhibit a linear dose-response relationship, the permittee must report the lowest concentration where there is no observable effect. The "100% or greater" limit is defined as a sample which is composed of 100% (or greater) effluent, the remainder being dilution water.

Part I.A.1. (Continued)

- a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
- b. The pH of the effluent shall not be less than 6.5 nor greater than 8.3 at any time.
- c. The dissolved oxygen content in the effluent shall not be less than 6.0 mg/l.
- d. The discharge shall not cause objectionable discoloration of the receiving waters.
- e. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
- f. The permittee's treatment facility shall maintain a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand. The percent removal shall be based on monthly average values.
- g. The results of sampling for any parameter above its required frequency must also be reported.
- h. The permittee shall, when the average annual flow exceeds eighty percent (80%) of the permitted facility's design flow, submit a report to the Department describing what steps the permittee will take in order to remain in compliance with the limitations and conditions in its permit, including in particular, limitations on the amount of flow authorized to be discharged under the permit.

- 2. All POTWs must provide adequate notice to the Director of the following:
 - a. Any new introduction of pollutants into that POTW from an indirect discharger in a primary industry category discharging process water; and
 - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - c. For purposes of this paragraph, adequate notice shall include information on:
 - (1) the quantity and quality of effluent introduced into the POTW; and
 - (2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

3. Toxics Control

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

4. Numerical Effluent Limitations for Toxicants

EPA or DEP may use the results of the toxicity tests and chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR Part 122.

B. DEVELOPMENT OF LIMITATIONS FOR INDUSTRIAL USERS

- a. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.
- b. The permittee shall develop and enforce specific effluent limits (local limits) for Industrial User(s), and all other users, as appropriate, which together with appropriate changes in the POTW Treatment Plant's Facilities or operation, are necessary to ensure continued compliance with the POTW's NPDES permit or sludge use or disposal practices. Specific local limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond. Within 120 days of the effective date of this permit), the permittee shall prepare and submit a written technical evaluation to the EPA

analyzing the need to revise local limits. As part of this evaluation, the permittee shall assess how the POTW performs with respect to influent and effluent of pollutants, water quality concerns, sludge quality, sludge processing concerns/inhibition, biomonitoring results, activated sludge inhibition, worker health and safety and collection system concerns. In preparing this evaluation, the permittee shall complete and submit the attached form Attachment B with the technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and conclusions should be based on actual plant data if available and should be included in the report. Should the evaluation reveal the need to revise local limits, the permittee shall complete the revisions within 300 days of notification by EPA and submit the revisions to EPA for approval. The Permittee shall carry out the local limits revisions in accordance with EPA's Local Limits Development Guidance (July 2004).

C. INDUSTRIAL PRETREATMENT PROGRAM

- a. The permittee shall implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, and the General Pretreatment Regulations, 40 CFR 403. At a minimum, the permittee must perform the following duties to properly implement the Industrial Pretreatment Program (IPP):
 - 1. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users shall be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.
 - 2. Issue or renew necessary industrial user control mechanisms within 90 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.
 - 3. Obtain appropriate remedies for noncompliance by any industrial user with any pretreatment standard and/or requirement.
 - 4. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.
- b. In accordance with 40 CFR Part 403.12(i), the permittee shall provide the EPA and the MassDEP with an annual report describing the permittee's pretreatment program activities for the twelve month period ending December 31. The annual report shall be consistent with the format described in Attachment C of this permit and shall be submitted no later than March 1st of each year.
- c. The permittee must obtain approval from EPA prior to making any significant changes to the industrial pretreatment program in accordance with 40 CFR 403.18(c).
- d. The permittee must assure that applicable National Categorical Pretreatment Standards are met

by all categorical industrial users of the POTW. These standards are published in the Federal Regulations at 40 CFR 405 et. seq.

e. The permittee must modify its pretreatment program to conform to all changes in the Federal Regulations that pertain to the implementation and enforcement of the industrial pretreatment program. The permittee must provide EPA, in writing, within 180 days of this permit's effective date proposed changes to the permittee's pretreatment program deemed necessary to assure conformity with current Federal Regulations. At a minimum, the permittee must address in its written submission, if applicable, the following areas: (1) Enforcement response plan; (2) revised sewer use ordinances; and (3) slug control evaluations. The permittee will implement these proposed changes pending EPA Region I's approval under 40 CFR 403.18. This submission is separate and distinct from any local limits analysis submission described above.

D. UNAUTHORIZED DISCHARGES

The permit only authorizes discharges in accordance with its terms and conditions and only from the outfall listed in Part I A.1. of this permit. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSOs) are not authorized by this permit and shall be reported in accordance with Section D.1.e. (1) of the General Requirements of this permit (Twenty-four hour reporting).

E. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part II and the following terms and conditions:

1. Maintenance Staff

The permittee and co-permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.

2. Preventative Maintenance Program

The permittee and co-permittee shall maintain an ongoing preventative maintenance program to prevent overflows and bypasses caused by malfunctions or failures of the sewer system infrastructure. The program shall include an inspection program designed to identify all potential and actual unauthorized discharges.

3. Infiltration/Inflow Control Plan:

The permittee and co-permittee shall develop and implement a plan to control infiltration and inflow (I/I) to the separate sewer system. The plan shall be submitted to EPA and MassDEP within one year of the effective date of this permit (see page 1 of this permit for the effective date) and shall describe the permittee's and co-permittee's program for preventing I/I related effluent limit violations, and all unauthorized discharges of wastewater, including overflows

and by-passes due to excessive I/I.

The plan shall include:

- An ongoing program to identify and remove sources of I/I. The program shall include the necessary funding level and the source(s) of funding.
- An inflow identification and control program that focuses on the disconnection and redirection of illegal sump pumps and roof down spouts. Priority should be given to removal of public and private inflow sources that are upstream from, and potentially contribute to, known areas of sewer system backups and/or overflows.
- Identification and prioritization of areas that will provide increased aquifer recharge as the result of reduction/elimination of I/I to the system.
- An educational public outreach program for all aspects of I/I control, particularly private inflow.

Reporting Requirements:

A summary report of all actions taken to minimize I/I during the previous calendar year shall be submitted to EPA and the MassDEP annually, by June 1st. The summary report shall, at a minimum, include:

- A map and a description of inspection and maintenance activities conducted and corrective actions taken during the previous year.
- Expenditures for any I/I related maintenance activities and corrective actions taken during the previous year.
- A map with areas identified for I/I related investigation/action in the coming year.
- A calculation of the annual average I/I, the maximum month I/I for the reporting year.
- A report of any I/I related corrective actions taken as a result of unauthorized discharges reported pursuant to 314 CMR 3.19(20) and reported pursuant to the <u>Unauthorized</u> <u>Discharges</u> section of this permit.

F. ALTERNATE POWER SOURCE

In order to maintain compliance with the terms and conditions of this permit, the permittee and co-permittee shall continue to provide an alternate power source with which to sufficiently operate the Publicly Owned Treatment Works as defined at 40 CFR §403.3.

G. SLUDGE CONDITIONS

1. The permittee shall comply with all existing federal and state laws and regulations that apply to

sewage sludge use and disposal practices and with the CWA Section 405(d) technical standards.

- 2. The permittee shall comply with the more stringent of either the state or federal (40 CFR part 503), requirements.
- 3. The requirements and technical standards of 40 CFR part 503 apply to facilities which perform one or more of the following use or disposal practices.
 - a. Land application the use of sewage sludge to condition or fertilize the soil.
 - b. Surface disposal the placement of sewage sludge in a sludge only landfill.
 - c. Sewage sludge incineration in a sludge only incinerator.
- 4. The 40 CFR Part 503 conditions do not apply to facilities which place sludge within a municipal solid waste landfill. These conditions also do not apply to facilities which do not dispose of sewage sludge during the life of the permit but rather treat the sludge (e.g. lagoons-reed beds), or are otherwise excluded under 40 CFR 503.6.
- 5. The permittee shall comply with the 40 CFR, Part 503 regulations. A compliance guidance document is attached to help determine appropriate conditions. Appropriate conditions contain the following elements:
 - General requirements
 - Pollutant limitations
 - Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
 - Management practices
 - Record keeping
 - Monitoring
 - Reporting

Depending upon the quality of material produced by a facility, all conditions may not apply to the facility.

6. The permittee shall monitor the pollutant concentrations, pathogen reduction and vector attraction reduction at the following frequency. This frequency is based upon the volume of sewage sludge generated at the facility in dry metric tons per year:

7. The permittee shall sample the sewage sludge using the procedures detailed in 40 CFR 503.8.

- The permittee shall submit an annual report containing the information specified in the guidance by February 19. Reports shall be submitted to the address contained in the reporting section of the permit. Sludge monitoring is not required by the permittee when the permittee is not responsible for the ultimate sludge disposal. The permittee must be assured that any third party contractor is in compliance with appropriate regulatory requirements. In such case, the permittee is required only to submit an annual report by February 19 containing the following information:
 - Name and address of contractor responsible for sludge disposal
 - Quantity of sludge in dry metric tons removed from the facility by the sludge contractor

H. MONITORING AND REPORTING

1. Reporting

Monitoring results obtained during each calendar month shall be summarized and reported on Discharge Monitoring Report Form(s) postmarked no later than the 15th day of the following month.

Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

Environmental Protection Agency Water Technical Unit (SEW) P.O. Box 8127 Boston, Massachusetts 02114

The State Agency is:

Massachusetts Department of Environmental Protection Southeast Regional Office - Bureau of Resource Protection 20 Riverside Drive Lakeville, MA 02347

Signed and dated Discharge Monitoring Report Forms and toxicity test reports required by this permit shall also be submitted to the State at:

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

Reports required in Sections B and C (local limits and pretreatment program) shall also be submitted to the State at:

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention - Industrial Wastewater Section
One Winter Street
Boston, MA 02108

I. STATE PERMIT CONDITIONS

- 1. This discharge permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit (unless otherwise noted) are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP pursuant to M.G.L. Chap. 21, §43.
- 2. Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of Federal law, this permit shall remain in full force and effect under State law as a permit issued by the Commonwealth of Massachusetts.

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PART II. A. GENERAL REQUIREMENTS

1. Duty to Comply

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

- a. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.
- b. The CWA provides that any person who violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any of such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Section 402 (a)(3) or 402 (b)(8) of the CWA is subject to a civil penalty not to exceed \$25,000 per day for each violation. Any person who negligently violates such requirements is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. Any person who knowingly violates such requirements is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both.
- c. Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

Note: See 40 CFR §122.4I(a)(2) for complete "Duty to Comply" regulations.

2. Permit Actions

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

3. Duty to Provide Information

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

Reopener Clause

The Regional Administrator reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA in order to bring all discharges into compliance with the CWA.

For any permit issued to a treatment works treating domestic sewage (including "sludge-only facilities"), the Regional Administrator or Director shall include a reopener clause to incorporate any applicable standard for sewage sludge use or disposal promulgated under Section 405 (d) of the CWA. The Regional Administrator or Director may promptly modify or revoke and reissue any permit containing the reopener clause required by this paragraph if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or contains a pollutant or practice not limited in the permit.

Federal regulations pertaining to permit modification, revocation and reissuance, and termination are found at 40 CFR §122.62, 122.63, 122.64, and 124.5.

5. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the CWA, or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

6. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges.

7. Confidentiality of Information

- a. In accordance with 40 CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).
- b. Claims of confidentiality for the following information will be denied:
 - (1) The name and address of any permit applicant or permittee;
 - (2) Permit applications, permits, and effluent data as defined in 40 CFR §2.302(a)(2).
- c. Information required by NPDES application forms provided by the Regional Administrator under 40 CFR §122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Regional Administrator. (The Regional Administrator shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

9. State Authorities

Nothing in Part 122, 123, or 124 precludes more stringent State regulation of any activity covered by these regulations, whether or not under an approved State program.

10. Other Laws

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

PART II. B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

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

2. Need to Halt or Reduce Not a Defense

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

3. Duty to Mitigate

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

4. Bypass

a. Definitions

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

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

b. Bypass not exceeding limitations

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Paragraphs B.4.c. and 4.d. of this section.

c. Notice

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (Twenty-four hour reporting).

d. Prohibition of bypass

Bypass is prohibited, and the Regional Administrator may take enforcement action against a permittee for bypass, unless:

- Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
- (3) i) The permittee submitted notices as required under Paragraph 4.c. of this section.
 - ii) The Regional Administrator may approve an anticipated bypass, after considering its adverse effects, if the Regional Administrator determines that it will meet the three conditions listed above in paragraph 4.d. of this section.

5. Upset

- a. Definition. Upset means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph B.5.c. of this section are met. No determination made during

administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in paragraphs D.1.a. and 1.e. (Twenty-four hour notice); and
 - (4) The permittee complied with any remedial measures required under B.3. above.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

PART II. C. MONITORING REQUIREMENTS

1. Monitoring and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. Except for records for monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application except for the information concerning storm water discharges which must be retained for a total of 6 years. This retention period may be extended by request of the Regional Administrator at any time.
- c. Records of monitoring information shall include:
 - (1) The date, exact place, and time of sampling or measurements;
 - (2) The individual(s) who performed the sampling or measurements;
 - (3) The date(s) analyses were performed;
 - (4) The individual(s) who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.
- d. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in the permit.
- e. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by

imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

2. Inspection and Entry

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

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

PART II. D. REPORTING REQUIREMENTS

1. Reporting Requirements

- a. Planned Changes. The permittee shall give notice to the Regional Administrator as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is only required when:
 - (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR§122.29(b); or
 - (2) The alteration or addition could significantly change the nature or increase the quantities of the pollutants discharged. This notification applies to pollutants which are subject neither to the effluent limitations in the permit, nor to the notification requirements at 40 CFR§122.42(a)(1).
 - (3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition or change may justify the application of permit conditions different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Anticipated noncompliance. The permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- c. Transfers. This permit is not transferable to any person except after notice to the Regional Administrator. The Regional Administrator may require modification or revocation and reissuance of the permit to change the name of the permittee and

incorporate such other requirements as may be necessary under the CWA. (See 40 CFR Part 122.61; in some cases, modification or revocation and reissuance is mandatory.)

- Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
 - (2) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of the monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.
 - (3) Calculations for all limitations which require averaging or measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
- e. Twenty-four hour reporting.
 - (1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provide orally within 24 hours from the time the permittee becomes aware of the circumstances.
 - A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - (2) The following shall be included as information which must be reported within 24 hours under this paragraph.
 - (a) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR §122.41(g).)
 - (b) Any upset which exceeds any effluent limitation in the permit.
 - (c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Administrator in the permit to be reported within 24 hours. (See 40 CFR §122.44(g).)
 - (3) The Regional Administrator may waive the written report on a case-by-case basis for reports under Paragraph D.1.e. if the oral report has been received within 24 hours.

- f. Compliance Schedules. Reports of compliance or noncompliance with, any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- g. Other noncompliance. The permittee shall report all instances of noncompliance not reported under Paragraphs D.1.d., D.1.e., and D.1.f. of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D.1.e. of this section.
- h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Administrator, it shall promptly submit such facts or information.

2. Signatory Requirement

- a. All applications, reports, or information submitted to the Regional Administrator shall be signed and certified. (See 40 CFR §122.22)
- b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

3. Availability of Reports.

Except for data determined to be confidential under Paragraph A.8. above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA.

PART II. E. DEFINITIONS AND ABBREVIATIONS

1. <u>Definitions for Individual NPDES Permits including Storm Water Requirements</u>

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all, State, interstate, and Federal standards and limitations to which a "discharge", a "sewage sludge use or disposal practice", or a related activity is subject to, including "effluent limitations", water quality standards, standards of performance, toxic effluent standards or prohibitions, "best management practices", pretreatment standards, and "standards for sewage sludge use and disposal" under Sections 301, 302, 303, 304, 306, 307, 308, 403, and 405 of the CWA.

NPDES PART II STANDARD CONDITIONS

(December, 2006)

Application means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in "approved States", including any approved modifications or revisions.

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For total and/or fecal coliforms and Escherichia coli, the average shall be the geometric mean.

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

Average weekly discharge limitation means the highest allowable average of "daily discharges" measured during the calendar week divided by the number of "daily discharges" measured during the week.

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

Best Professional Judgment (BPJ) means a case-by-case determination of Best Practicable Treatment (BPT), Best Available Treatment (BAT), or other appropriate technology-based standard based on an evaluation of the available technology to achieve a particular pollutant reduction and other factors set forth in 40 CFR §125.3 (d).

Coal Pile Runoff means the rainfall runoff from or through any coal storage pile.

Composite Sample means a sample consisting of a minimum of eight grab samples of equal volume collected at equal intervals during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportional to flow, or a sample consisting of the same number of grab samples, or greater, collected proportionally to flow over that same time period.

Construction Activities - The following definitions apply to construction activities:

- (a) <u>Commencement of Construction</u> is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.
- (b) <u>Dedicated portable asphalt plant</u> is a portable asphalt plant located on or contiguous to a construction site and that provides asphalt only to the construction site that the plant is located on or adjacent to. The term dedicated portable asphalt plant does not include facilities that are subject to the asphalt emulsion effluent limitation guideline at 40 CFR Part 443.
- (c) <u>Dedicated portable concrete plant</u> is a portable concrete plant located on or contiguous to a construction site and that provides concrete only to the construction site that the plant is located on or adjacent to.

- (d) <u>Final Stabilization</u> means that all soil disturbing activities at the site have been complete, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
- (e) Runoff coefficient means the fraction of total rainfall that will appear at the conveyance as runoff.

Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

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

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, and Pub. L. 97-117; 33 USC §§1251 et seq.

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

Director normally means the person authorized to sign NPDES permits by EPA or the State or an authorized representative. Conversely, it also could mean the Regional Administrator or the State Director as the context requires.

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

Discharge of a pollutant_means:

- (a) Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source", or
- (b) Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation (See "Point Source" definition).

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead

to a treatment works; and discharges through pipes, sewers, or other conveyances leading into privately owned treatment works.

This term does not include and addition of pollutants by any "indirect discharger."

Effluent limitation means any restriction imposed by the Regional Administrator on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from "point sources" into "waters of the United States", the waters of the "contiguous zone", or the ocean.

Effluent limitation guidelines means a regulation published by the Administrator under Section 304(b) of CWA to adopt or revise "effluent limitations".

EPA means the United States "Environmental Protection Agency".

Flow-weighted composite sample means a composite sample consisting of a mixture of aliquots where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab Sample - An individual sample collected in a period of less than 15 minutes.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the CWA.

Indirect Discharger means a non-domestic discharger introducing pollutants to a publicly owned treatment works.

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

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

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.

Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

Large and Medium municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and 40 CFR Part 122); or (ii) located in the counties with unincorporated urbanized

populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships, or towns within such counties (these counties are listed in Appendices H and I of 40 CFR 122); or (iii) owned or operated by a municipality other than those described in Paragraph (i) or (ii) and that are designated by the Regional Administrator as part of the large or medium municipal separate storm sewer system.

Maximum daily discharge limitation means the highest allowable "daily discharge" concentration that occurs only during a normal day (24-hour duration).

Maximum daily discharge limitation (as defined for the Steam Electric Power Plants only) when applied to Total Residual Chlorine (TRC) or Total Residual Oxidant (TRO) is defined as "maximum concentration" or "Instantaneous Maximum Concentration" during the two hours of a chlorination cycle (or fraction thereof) prescribed in the Steam Electric Guidelines, 40 CFR Part 423. These three synonymous terms all mean "a value that shall not be exceeded" during the two-hour chlorination cycle. This interpretation differs from the specified NPDES Permit requirement, 40 CFR § 122.2, where the two terms of "Maximum Daily Discharge" and "Average Daily Discharge" concentrations are specifically limited to the daily (24-hour duration) values.

Municipality means a city, own, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribe organization, or a designated and approved management agency under Section 208 of the CWA.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the CWA. The term includes an 'approved program'.

New Discharger means any building, structure, facility, or installation:

- (a) From which there is or may be a "discharge of pollutants";
- (b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;
- (c) Which is not a "new source"; and
- (d) Which has never received a finally effective NPDES permit for discharges at that "site".

This definition includes an "indirect discharger" which commences discharging into "waters of the United States" after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a "site" for which it does not have a permit; and any offshore rig or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a "site" under EPA's permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Regional Administrator in the issuance of a final permit to be in an area of biological concern. In determining whether an area is an area of biological concern, the Regional Administrator shall consider the factors specified in 40 CFR §§125.122 (a) (1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a "new discharger" only for the duration of its discharge in an area of biological concern.

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

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

NPDES means "National Pollutant Discharge Elimination System".

Owner or operator means the owner or operator of any "facility or activity" subject to regulation under the NPDES programs.

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

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved" State.

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to any pipe ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (see 40 CFR §122.2).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. §§2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

- (a) Sewage from vessels; or
- (b) Water, gas, or othermaterial which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes is approved by the authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

Primary industry category means any industry category listed in the NRDC settlement agreement (Natural Resources Defense Council et al. V. Train, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D. D.C. 1979)); also listed in Appendix A of 40 CFR Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operation is not the operator of the treatment works or (b) not a "POTW".

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

Publicly Owned Treatment Works (POTW) means any facility or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "State" or "municipality".

This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Regional Administrator means the Regional Administrator, EPA, Region I, Boston, Massachusetts.

Secondary Industry Category means any industry which is not a "primary industry category".

Section 313 water priority chemical means a chemical or chemical category which:

- (1) is listed at 40 CFR §372.65 pursuant to Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986);
- (2) is present at or above threshold levels at a facility subject to EPCRA Section 313 reporting requirements; and
- (3) satisfies at least one of the following criteria:
 - (i) are listed in Appendix D of 40 CFR Part 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols), or Table V (certain toxic pollutants and hazardous substances);
 - (ii) are listed as a hazardous substance pursuant to Section 311(b)(2)(A) of the CWA at 40 CFR §116.4; or
 - (iii) are pollutants for which EPA has published acute or chronic water quality criteria.

Septage means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Sewage Sludge means any solid, semisolid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced wastewater treatment, scum, septage, portable toilet pumpings, Type III Marine Sanitation Device pumpings (33 CFR Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

Sewage sludge use or disposal practice means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

Significant materials includes, but is not limited to: raw materials, fuels, materials such as solvents, detergents, and plastic pellets, raw materials used in food processing or production, hazardous substance designated under section 101(14) of CERCLA, any chemical the facility is required to report pursuant to EPCRA Section 313, fertilizers, pesticides, and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

Significant spills includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 CFR §110.10 and §117.21) or Section 102 of CERCLA (see 40 CFR § 302.4).

Sludge-only facility means any "treatment works treating domestic sewage" whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to Section 405(d) of the CWA, and is required to obtain a permit under 40 CFR §122.1(b)(3).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, America Samoa, the Trust Territory of the Pacific Islands.

Storm Water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm water discharge associated with industrial activity means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. (See 40 CFR §122.26 (b)(14) for specifics of this definition.

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

Toxic pollutants means any pollutant listed as toxic under Section 307 (a)(1) or, in the case of "sludge use or disposal practices" any pollutant identified in regulations implementing Section 405(d) of the CWA.

Treatment works treating domestic sewage means a POTW or any other sewage sludge or wastewater treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices.

For purposes of this definition, "domestic sewage" includes waste and wastewater from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in 40 CFR Part 503 as a "treatment works treating domestic sewage", where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 CFR Part 503.

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Waste Pile means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

Waters of the United States means:

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of tide;
- (b) All interstate waters, including interstate "wetlands";
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands", sloughs; prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) Which are or could be used by interstate or foreign travelers for recreational or other purpose;
 - (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in Paragraphs (a) through (d) of this definition;
- (f) The territorial sea; and
- (g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in Paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 CFR §423.11(m) which also meet the criteria of this definition) are not waters of the United States.

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

Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test. (See Abbreviations Section, following, for additional information.)

2. Definitions for NPDES Permit Sludge Use and Disposal Requirements.

Active sewage sludge unit is a sewage sludge unit that has not closed.

Aerobic Digestion is the biochemical decomposition of organic matter in sewage sludge into carbon dioxide and water by microorganisms in the presence of air.

Agricultural Land is land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture.

Agronomic rate is the whole sludge application rate (dry weight basis) designed:

- (1) To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; and
- (2) To minimize the amount of nitrogen in the sewage sludge that passes below the root zone of the crop or vegetation grown on the land to the groundwater.

Air pollution control device is one or more processes used to treat the exit gas from a sewage sludge incinerator stack.

Anaerobic digestion is the biochemical decomposition of organic matter in sewage sludge into methane gas and carbon dioxide by microorganisms in the absence of air.

Annual pollutant loading rate is the maximum amount of a pollutant that can be applied to a unit area of land during a 365 day period.

Annual whole sludge application rate is the maximum amount of sewage sludge (dry weight basis) that can be applied to a unit area of land during a 365 day period.

Apply sewage sludge or sewage sludge applied to the land means land application of sewage sludge.

Aquifer is a geologic formation, group of geologic formations, or a portion of a geologic formation capable of yielding ground water to wells or springs.

Auxiliary fuel is fuel used to augment the fuel value of sewage sludge. This includes, but is not limited to, natural gas, fuel oil, coal, gas generated during anaerobic digestion of sewage sludge, and municipal solid waste (not to exceed 30 percent of the dry weight of the sewage sludge and auxiliary fuel together). Hazardous wastes are not auxiliary fuel.

Base flood is a flood that has a one percent chance of occurring in any given year (i.e. a flood with a magnitude equaled once in 100 years).

Bulk sewage sludge is sewage sludge that is not sold or given away in a bag or other container for application to the land.

Contaminate an aquifer means to introduce a substance that causes the maximum contaminant level for nitrate in 40 CFR §141.1! to be exceeded in ground water or that causes the existing concentration of nitrate in the groundwater to increase when the existing concentration of nitrate in the ground water exceeds the maximum contaminant level for nitrate in 40 CFR §141.11.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 CFR §501.2, required to have an approved pretreatment program under 40 CFR §403.8 (a) (including any POTW located in a state that has elected to assume local program responsibilities pursuant to 40

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CFR §403.10 (e) and any treatment works treating domestic sewage, as defined in 40 CFR § 122.2, classified as a Class 1 sludge management facility by the EPA Regional Administrator, or, in the case of approved state programs, the Regional Administrator in conjunction with the State Director, because of the potential for sewage sludge use or disposal practice to affect public health and the environment adversely.

Control efficiency is the mass of a pollutant in the sewage sludge fed to an incinerator minus the mass of that pollutant in the exit gas from the incinerator stack divided by the mass of the pollutant in the sewage sludge fed to the incinerator.

Cover is soil or other material used to cover sewage sludge placed on an active sewage sludge unit.

Cover crop is a small grain crop, such as oats, wheat, or barley, not grown for harvest.

Cumulative pollutant loading rate is the maximum amount of inorganic pollutant that can be applied to an area of land.

Density of microorganisms is the number of microorganisms per unit mass of total solids (dry weight) in the sewage sludge.

Dispersion factor is the ratio of the increase in the ground level ambient air concentration for a pollutant at or beyond the property line of the site where the sewage sludge incinerator is located to the mass emission rate for the pollutant from the incinerator stack.

Displacement is the relative movement of any two sides of a fault measured in any direction.

Domestic septage is either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

Domestic sewage is waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

Dry weight basis means calculated on the basis of having been dried at 105 degrees Celsius (°C) until reaching a constant mass (i.e. essentially 100 percent solids content).

Fault is a fracture or zone of fractures in any materials along which strata on one side are displaced with respect to the strata on the other side.

Feed crops are crops produced primarily for consumption by animals.

Fiber crops are crops such as flax and cotton.

Final cover is the last layer of soil or other material placed on a sewage sludge unit at closure.

Fluidized bed incinerator is an enclosed device in which organic matter and inorganic matter in sewage sludge are combusted in a bed of particles suspended in the combustion chamber gas.

Food crops are crops consumed by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

Forest is a tract of land thick with trees and underbrush.

Ground water is water below the land surface in the saturated zone.

Holocene time is the most recent epoch of the Quaternary period, extending from the end of the Pleistocene epoch to the present.

Hourly average is the arithmetic mean of all the measurements taken during an hour. At least two measurements must be taken during the hour.

Incineration is the combustion of organic matter and inorganic matter in sewage sludge by high temperatures in an enclosed device.

Industrial wastewater is wastewater generated in a commercial or industrial process.

Land application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Land with a high potential for public exposure is land that the public uses frequently. This includes, but is not limited to, a public contact site and reclamation site located in a populated area (e.g., a construction site located in a city).

Land with low potential for public exposure is land that the public uses infrequently. This includes, but is not limited to, agricultural land, forest and a reclamation site located in an unpopulated area (e.g., a strip mine located in a rural area).

Leachate collection system is a system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a sewage sludge unit.

Liner is soil or synthetic material that has a hydraulic conductivity of 1 x 10⁻⁷ centimeters per second or less.

Lower explosive limit for methane gas is the lowest percentage of methane gas in air, by volume, that propagates a flame at 25 degrees Celsius and atmospheric pressure.

Monthly average (Incineration) is the arithmetic mean of the hourly averages for the hours a sewage sludge incinerator operates during the month.

Monthly average (Land Application) is the arithmetic mean of all measurements taken during the month.

Municipality means a city, town, borough, county, parish, district, association, or other public body (including an intermunicipal agency of two or more of the foregoing entities) created by or under State law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge management; or a designated and approved management agency under section 208 of the CWA, as amended. The definition includes a special district created under state law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity, or an

integrated waste management facility as defined in section 201 (e) of the CWA, as amended, that has as one of its principal responsibilities the treatment, transport, use or disposal of sewage sludge.

Other container is either an open or closed receptacle. This includes, but is not limited to, a bucket, a box, a carton, and a vehicle or trailer with a load capacity of one metric ton or less.

Pasture is land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or stover.

Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Permitting authority is either EPA or a State with an EPA-approved sludge management program.

Person is an individual, association, partnership, corporation, municipality, State or Federal Agency, or an agent or employee thereof.

Person who prepares sewage sludge is either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

pH means the logarithm of the reciprocal of the hydrogen ion concentration; a measure of the acidity or alkalinity of a liquid or solid material.

Place sewage sludge or sewage sludge placed means disposal of sewage sludge on a surface disposal site.

Pollutant (as defined in sludge disposal requirements) is an organic substance, an inorganic substance, a combination or organic and inorganic substances, or pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could on the basis on information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction) or physical deformations in either organisms or offspring of the organisms.

Pollutant limit (for sludge disposal requirements) is a numerical value that describes the amount of a pollutant allowed per unit amount of sewage sludge (e.g., milligrams per kilogram of total solids); the amount of pollutant that can be applied to a unit of land (e.g., kilograms per hectare); or the volume of the material that can be applied to the land (e.g., gallons per acre).

Public contact site is a land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.

Qualified ground-water scientist is an individual with a baccalaureate or post-graduate degree in the natural sciences or engineering who has sufficient training and experience in ground-water hydrology and related fields, as may be demonstrated by State registration, professional certification, or completion of accredited university programs, to make sound professional judgments regarding ground-water monitoring, pollutant fate and transport, and corrective action.

Range land is open land with indigenous vegetation.

Reclamation site is drastically disturbed land that is reclaimed using sewage sludge. This includes, but is not limited to, strip mines and construction sites.

Risk specific concentration is the allowable increase in the average daily ground level ambient air concentration for a pollutant from the incineration of sewage sludge at or beyond the property line of a site where the sewage sludge incinerator is located.

Runoff is rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off the land surface.

Seismic impact zone is an area that has 10 percent or greater probability that the horizontal ground level acceleration to the rock in the area exceeds 0.10 gravity once in 250 years.

Sewage sludge is a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived form sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in treatment works.

Sewage sludge feed rate is either the average daily amount of sewage sludge fired in all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located for the number of days in a 365 day period that each sewage sludge incinerator operates, or the average daily design capacity for all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located.

Sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired.

Sewage sludge unit is land on which only sewage sludge is placed for final disposal. This does not include land on which sewage sludge is either stored or treated. Land does not include waters of the United States, as defined in 40 CFR §122.2.

Sewage sludge unit boundary is the outermost perimeter of an active sewage sludge unit.

Specific oxygen uptake rate (SOUR) is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in sewage sludge.

Stack height is the difference between the elevation of the top of a sewage sludge incinerator stack and the elevation of the ground at the base of the stack when the difference is equal to or less than 65 meters. When the difference is greater than 65 meters, stack height is the creditable stack height determined in accordance with 40 CFR §51.100 (ii).

State is one of the United States of America, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Commonwealth of the Northern Mariana Islands, and an Indian tribe eligible for treatment as a State pursuant to regulations promulgated under the authority of section 518(e) of the CWA.

Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Surface disposal site is an area of land that contains one or more active sewage sludge units.

Total hydrocarbons means the organic compounds in the exit gas from a sewage sludge incinerator stack measured using a flame ionization detection instrument referenced to propane.

Total solids are the materials in sewage sludge that remain as residue when the sewage sludge is dried at 103 to 105 degrees Celsius.

Treat or treatment of sewage sludge is the preparation of sewage sludge for final use or disposal. This includes, but is not limited to, thickening, stabilization, and dewatering of sewage sludge. This does not include storage of sewage sludge.

Treatment works is either a federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Unstable area is land subject to natural or human-induced forces that may damage the structural components of an active sewage sludge unit. This includes, but is not limited to, land on which the soils are subject to mass movement.

Unstabilized solids are organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air.

Wet electrostatic precipitator is an air pollution control device that uses both electrical forces and water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

Wet scrubber is an air pollution control device that uses water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

3. Commonly Used Abbreviations

BOD Five-day biochemical oxygen demand unless otherwise specified
CBOD Carbonaceous BOD
CFS Cubic feet per second
COD Chemical oxygen demand
Chlorine
Cl₂ Total residual chlorine

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TRC Total residual chlorine which is a combination of free available chlorine

(FAC, see below) and combined chlorine (chloramines, etc.)

TRO Total residual chlorine in marine waters where halogen compounds are

present

FAC Free available chlorine (aqueous molecular chlorine, hypochlorous acid,

and hypochlorite ion)

Coliform

Coliform, Fecal Total fecal coliform bacteria

Coliform, Total Total coliform bacteria

Cont. (Continuous) Continuous recording of the parameter being monitored, i.e.

flow, temperature, pH, etc.

Cu. M/day or M³/day Cubic meters per day

DO Dissolved oxygen

kg/day Kilograms per day

lbs/day Pounds per day

mg/l Milligram(s) per liter

ml/l Milliliters per liter

MGD Million gallons per day

Nitrogen

Total N Total nitrogen

NH₃-N Ammonia nitrogen as nitrogen

NO₃-N Nitrate as nitrogen

NO₂-N Nitrite as nitrogen

NO₃-NO₂ Combined nitrate and nitrite nitrogen as nitrogen

TKN Total Kjeldahl nitrogen as nitrogen

Oil & Grease Freon extractable material

PCB Polychlorinated biphenyl

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pH A measure of the hydrogen ion concentration. A measure of the

alkalinity of a liquid or material

Surfaceactive agent

Temp. °C Temperature in degrees Centigrade

Temp. °F Temperature in degrees Fahrenheit

TOC Total organic carbon

Total P Total phosphorus

TSS or NFR Total suspended solids or total nonfilterable residue

Turb. or Turbidity Turbidity measured by the Nephelometric Method (NTU)

ug/l Microgram(s) per liter

WET "Whole effluent toxicity" is the total effect of an effluent

measured directly with a toxicity test.

C-NOEC "Chronic (Long-term Exposure Test) – No Observed Effect

Concentration". The highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test

organisms at a specified time of observation.

A-NOEC "Acute (Short-term Exposure Test) - No Observed Effect Concentration"

(see C-NOEC definition).

LC₅₀ LC₅₀ is the concentration of a sample that causes mortality of 50% of the

test population at a specific time of observation. The $LC_{50} = 100\%$ is

defined as a sample of undiluted effluent.

ZID Zone of Initial Dilution means the region of initial mixing

surrounding or adjacent to the end of the outfall pipe or diffuser

ports.

ATTACHMENT A

FRESHWATER CHRONIC TOXICITY TEST PROCEDURE AND PROTOCOL

I. GENERAL REQUIREMENTS

The permittee shall conduct acceptable chronic (and modified acute) toxicity tests on three samples collected during the test period. The following tests shall be performed in accordance with the appropriate test protocols described below:

- Daphnid (Ceriodaphnia dubia) Survival and Reproduction Test.
- Fathead Minnow (Pimephales promelas) Larval Growth and Survival Test.

Chronic toxicity data shall be reported as outlined in Section VIII. The chronic fathead minnow and daphnid tests can be used to calculate an LC50 at the end of 48 hours of exposure when both an acute (LC50) and a chronic (C-NOEC) test is specified in the permit.

II. METHODS

Methods to follow are those recommended by EPA in:

Lewis, P.A. et al. Short Term Methods For Estimating The Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms, Third Edition. Environmental Monitoring Systems Laboratory, U.S. Environmental Protection Agency, Cincinnati, OH. July 1994, EPA/600/4-91/002.

Any exceptions are stated herein.

III. SAMPLE COLLECTION

For each sampling event, three discharge samples shall be collected. Fresh samples are necessary for Days 1, 3, and 5 (see Section V. for holding times). The initial sample is used to start the test on Day 1, and for test solution renewal on Day 2. The second sample is collected for use at the start of Day 3, and for renewal on Day 4. The third sample is used for renewal on Days 5, 6, and 7 (or until termination for the Ceriodaphnia dubia test). The initial (Day 1) sample will be analyzed chemically (see Section VI). Day 3 and 5 samples will be held until test completion. If either the Day 3 or 5 renewal sample is of sufficient potency to cause lethality to 50 percent or more test organisms in any of the dilutions for either species, then a chemical analysis shall be performed on the appropriate sample(s) as well.

Aliquots shall be split from the samples, containerized and preserved (as per 40 CFR Part 136) for chemical and physical analyses. The remaining samples shall be measured for total residual chlorine and dechlorinated (if detected) in the laboratory using sodium thiosulfate for subsequent

toxicity testing. (Note that EPA approved test methods require that samples collected for metals analyses be preserved immediately after collection.) Grab samples must be used for pH, temperature, and total residual chlorine (as per 40 CFR Part 122.21).

Standard Methods for the Examination of Water and Wastewater also describes dechlorination of samples (APHA, 1992). Dechlorination can be achieved using a ratio of 6.7 mg/L anhydrous sodium thiosulfate to reduce 1 mg/L chlorine. A thiosulfate control (maximum amount of thiosulfate in lab control or receiving water) should also be run.

All samples held overnight shall be refrigerated at 4°C.

IV. DILUTION WATER

Grab samples of dilution water used for chronic toxicity testing shall be collected from the receiving water at a point upstream of the discharge free from toxicity or other sources of contamination. Avoid collecting near areas of obvious road or agricultural runoff, storm sewers or other point source discharges. An additional control (0% effluent) of a standard laboratory water of known quality shall also be tested.

If the receiving water diluent is found to be, or suspected to be toxic or unreliable, an alternate standard dilution water of known quality with a hardness, pH, conductivity, alkalinity, organic carbon, and total suspended solids similar to that of the receiving water may be substituted AFTER RECEIVING WRITTEN APPROVAL FROM THE PERMIT ISSUING AGENCY(S). Written requests for use of an alternate dilution water should be mailed with supporting documentation to the following address:

Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency, Region 1
One Congress Street
Suite 1100 (CAA)
Boston, MA 02114-2023

It may prove beneficial to have the dilution water source screened for suitability prior to toxicity testing. EPA strongly urges that screening be done prior to set up of a full definitive toxicity test any time there is question about the dilution water's ability to support acceptable performance as outlined in the 'test acceptability' section of the protocol. See Section 7 of EPA/600/4-89/001 for further information.

V. TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

EPA New England requires that fathead minnow tests be performed using <u>four</u> (not three) replicates of each control and effluent concentration because the non-parametric statistical tests cannot be used with data from only three replicates. Also, if a reference toxicant test was being performed concurrently with an effluent or receiving water test and fails, both tests must be repeated.

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The following tables summarize the accepted daphnid and fathead minnow toxicity test conditions and test acceptability criteria:

EPA NEW ENGLAND RECOMMENDED EFFLUENT TOXICITY TEST CONDITIONS FOR THE DAPHNID, CERIODAPHNIA DUBIA, SURVIVAL AND REPRODUCTION TEST 1

1. Test type:	Static, renewal
2. Temperature (°C):	25 <u>+</u> 1°C
3. Light quality:	Ambient laboratory illumination
4. Photoperiod:	16 hr. light, 8 hr. dark
5. Test chamber size:	30 mL
6. Test solution volume:	15 mL
7. Renewal of test solutions:	Daily using most recently collected sample
8. Age of test organisms:	Less than 24 hr.; and all released within an 8 hr. period of each other.
9. Number of neonates per test chamber:	1
10. Number of replicate test chambers per treatment:	10
11. Number of neonates per test concentration:	10
12. Feeding regime:	Feed 0.1 ml each of YCT and concentrated algal suspension per exposure chamber daily.
13. Aeration:	None
14. Dilution water: ²	Receiving water, other surface water, synthetic soft water adjusted to the hardness and alkalinity of the receiving water (prepared using either Millipore Milli-Q ^R or
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equivalent deionized water and reagent grade chemicals according to EPA chronic toxicity test manual) or deionized water combined with mineral water to appropriate hardness.

15. Effluent concentrations:³

5 effluent concentrations and a control. An additional dilution at the permitted effluent concentration (% effluent) is required if it is not included in the dilution series.

16. Dilution factor:

 ≥ 0.5

17. Test duration:

Until 60% of control females have three broods (generally 7 days and a maximum of 8 days).

18. End points:

Survival and reproduction

19. Test acceptability:

80% or greater survival and an average of 15 or more young/surviving female in the control solutions. At least 60% of surviving females in controls must produce three broods.

20. Sampling requirements:

For on-site tests, samples are collected daily and used within 24 hr. of the time they are removed from the sampling device. For off-site tests a minimum of three samples are collected (i.e. days 1, 3, 5) and used for renewal (see Sec. III). Off-site tests samples must be first used within 36 hours of

collection.

21. Sample volume required:

Minimum 1 liter/day

Footnotes:

Adapted from EPA/600/4-91/002.

Standard dilution water must have hardness requirements to generally reflect characteristics of the receiving water.

When receiving water is used for dilution, an additional control made up of standard laboratory dilution water (0% effluent) is required.

EPA NEW ENGLAND RECOMMENDED EFFLUENT TEST CONDITIONS FOR THE FATHEAD MINNOW (PIMEPHALES PROMELAS) LARVAL SURVIVAL AND GROWTH TEST¹

1. Test type:

Static, renewal

2. Temperature (°C):

 $25 \pm 1^{\circ}C$

3. Light quality:

Ambient laboratory illumination

4. Photoperiod:

16 hr. light, 8 hr. dark

5. Test chamber size:

500 mL minimum

6. Test solution volume:

Minimum 250 mL/replicate

7. Renewal of test concentrations:

Daily using most recently

collected sample.

8. Age of test organisms:

Newly hatched larvae less

than 24 hr. old

9. No. larvae/test chamber

and control:

15 (minimum of 10)

10. No. of replicate chambers/

concentration:

11. No. of larvae/concentration:

60 (minimum of 40)

12. Feeding regime:

Feed 0.1 g newly hatched, distilled waterrinsed Artemia nauplii at least 3 times daily at 4 hr. intervals or, as a minimum, 0.15 g twice daily, 6 hrs. between feedings (at the beginning of the work day prior to renewal, and at the end of the work day following renewal). Sufficient larvae are added to provide an excess. Larvae fish are not fed

during the final 12 hr. of the test.

13. Cleaning:

Siphon daily, immediately before test

solution renewal.

14. Aeration:

None, unless dissolved oxygen (D.O.) concentration falls below 4.0 mg/L. Rate should be less than 100 bubbles/min.

15. Dilution water:²

Receiving water, other surface water, synthetic soft water adjusted to the hardness and alkalinity of the receiving water (prepared using either Millipore Milli-Q^R or equivalent deionized and reagent grade chemicals according to EPA chronic toxicity test manual) or deionized water combined with mineral water to appropriate hardness.

16. Effluent concentrations:³

5 and a control. An additional dilution at the permitted effluent concentration (% effluent) is required if it is not included in the dilution series.

17. Dilution factor:

 ≥ 0.5

18. Test duration:

7 days

19. End points:

Survival and growth (weight)

20. Test acceptability:

80% or greater survival in controls: average dry weight per control larvae equals or exceeds 0.25 mg.

21. Sampling requirements:

For on-site tests samples are collected and used within 24 hours of the time they are removed from the sampling device. For off-site tests a minimum of three samples are collected (i.e. days 1, 3, 5) and used for renewal (see Sec.IV). Off-site tests samples must be first used within 36 hours of collection.

22. Sample volume required:

Minimum 2.5 liters/day

Footnotes:

Adapted from EPA/600/4-91/002.

Standard dilution water must have hardness requirements to generally reflect characteristics of the receiving water.

When receiving water is used for dilution, an additional control made up of standard laboratory or culture water (0% effluent) is required.

VI. CHEMICAL ANALYSIS

As part of each daily renewal procedure, pH, specific conductance, dissolved oxygen, and temperature must be measured at the beginning and end of each 24-hour period in each dilution and the controls. It is also recommended that total alkalinity and total hardness be measured in the control and highest effluent concentration on the Day 1, 3, and 5 samples. The following chemical analyses shall be performed for each sampling event.

 -	Damouratan	Effluent	Dilyont	Minimum Quantification Lovel (mg/l.)
	Parameter	<u>Effluent</u>	<u>Diluent</u>	Level (mg/L)
	Hardness *1	X	x	0.5
	Alkalinity	X	X	2.0
* *	pH	x	x	
	Specific Conductance	X	X .	
	Total Solids and Suspended Solids	x	X	
	Ammonia	x	X	0.1
	Total Organic Carbon	x	X	0.5
	Total Residual Chlorine (TRC) *2	x	x	0.05
	Dissolved Oxygen	x .	x	1.0
	Total Metals			
	Cd	x	x	0.001
	Cr	x	x	0.005
	Pb	x	x	0.005
	Cu	x	x	0.0025
	Zn	x	x	0.0025
	Ni	x	x	0.004
	Al	x	x	0.02
	Mg, Ca	x	x	0.05

Superscripts:

Method 2340 B (hardness by calculation) from APHA (1992) Standard Methods for the Examination of Water and Wastewater. 18th Edition.

- -Method 4500-CL E Low Level Amperometric Titration (the preferred method);
- -Method 4500-CL G DPD Colorimetric Method.

or use USEPA Manual of Methods Analysis of Water and Wastes, Method 330.5.

Either of the following methods from the 18th Edition of the APHA <u>Standard Methods</u> for the Examination of Water and Wastewater must be used for Total Residual Chlorine analyses:

VII. TOXICITY TEST DATA ANALYSIS

LC50 Median Lethal Concentration (Determined at 48 Hours)

Methods of Estimation:

- Probit Method
- Spearman-Karber
- Trimmed Spearman-Karber
- Graphical

Reference the flow chart on page 84 or page 172 of EPA 600/4-91/002 for the appropriate method to use on a given data set.

Chronic No Observed Effects Concentration (C-NOEC)

Methods of Estimation:

- Dunnett's Procedure
 - Bonferroni's T-Test
 - Steel's Many-One Rank Test
 - Wilcoxin Rank Sum Test

Reference the flow charts on pages 50, 83, 96, 172, and 176 of EPA 600/4-91/002 for the appropriate method to use on a given data set.

In the case of two tested concentrations causing adverse effects but an intermediate concentration not causing a statistically significant effect, report the C-NOEC as the lowest concentration where there is no observable effect. The definition of NOEC in the EPA Technical Support Document only applies to linear dose-response data.

VIII. TOXICITY TEST REPORTING

A report of results will include the following:

- Description of sample collection procedures, site description;
- Names of individuals collecting and transporting samples, times and dates of sample collection and analysis on chain-of-custody; and
- General description of tests: age of test organisms, origin, dates and results of standard toxicant tests; light and temperature regime; other information on test conditions if different than procedures recommended. Reference toxicant test data should be included.
- All chemical/physical data generated. (Include minimum detection levels and minimum quantification levels.)
- Raw data and bench sheets.
- Provide a description of dechlorination procedures (as applicable).

Any other observations or test conditions affecting test outcome.

Attachment B

EPA - New England

Reassessment of Technically Based Industrial Discharge Limits

Under 40 CFR §122.21(j)(4), all Publicly Owned Treatment Works (POTWs) with approved Industrial Pretreatment Programs (IPPs) shall provide the following information to the Director: a written evaluation of the need to revise local industrial discharge limits under 40 CFR §403.5(c)(1).

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

Please read direction below before filling out form.

ITEM I.

- * In Column (1), list what your POTW's influent flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present influent flow rate. Your current flow rate should be calculated using the POTW's average daily flow rate from the previous 12 months.
- * In Column (1) list what your POTW's SIU flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present SIU flow rate.
- * In Column (1), list what dilution ratio and/or 7Q10 value was used in your old/expired NPDES permit. In Column (2), list what dilution ration and/or 7Q10 value is presently being used in your new/reissued NPDES permit.
 - The 7Q10 value is the lowest seven day average flow rate, in the river, over a ten year period. The 7Q10 value and/or dilution ratio used by EPA in your new NPDES permit can be found in your NPDES permit "Fact Sheet."
- * In Column (1), list the safety factor, if any, that was used when your existing TBLLs were calculated.
- * In Column (1), note how your bio-solids were managed when your existing TBLLs were calculated. In Column (2), note how your POTW is presently disposing of its biosolids and how your POTW will be disposing of its biosolids in the future.

ITEM II.

ITEM III. Solution for the following states of the fo		EXISTI	NG TBLLs	<u> </u>
fote how your existing TBLLs, listed in Item II., are allocated to your Significant Industrial Isers (SIUs), i.e. uniform concentration, contributory flow, mass proportioning, other. Pleas secify by circling. ITEM IV. Tas your POTW experienced any upsets, inhibition, interference or pass-through from industrial purces since your existing TBLLs were calculated? Tyes, explain. Tas your POTW violated any of its NPDES permit limits and/or toxicity test requirements?	POLLUTANT	LIMIT	POLLUTANT	LIMIT
fote how your existing TBLLs, listed in Item II., are allocated to your Significant Industrial Isers (SIUs), i.e. uniform concentration, contributory flow, mass proportioning, other. Pleas secify by circling. ITEM IV. Tas your POTW experienced any upsets, inhibition, interference or pass-through from industrial purces since your existing TBLLs were calculated? Tyes, explain. Tas your POTW violated any of its NPDES permit limits and/or toxicity test requirements?		·.		
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fote how your existing TBLLs, listed in Item II., are allocated to your Significant Industrial Isers (SIUs), i.e. uniform concentration, contributory flow, mass proportioning, other. Pleas secify by circling. ITEM IV. Tas your POTW experienced any upsets, inhibition, interference or pass-through from industrial purces since your existing TBLLs were calculated? Tyes, explain. Tas your POTW violated any of its NPDES permit limits and/or toxicity test requirements?			i	
as your POTW experienced any upsets, inhibition, interference or pass-through from industriances since your existing TBLLs were calculated? Yes, explain. Tas your POTW violated any of its NPDES permit limits and/or toxicity test requirements?	Note how your existing Jsers (SIUs), i.e. unit pecify by circling.	ng TBLLs, listed in Item I form concentration, contri	I., are allocated to your Si butory flow, mass propor	gnificant Industrial tioning, other. Please
yes, explain. Tas your POTW violated any of its NPDES permit limits and/or toxicity test requirements?		ITI	EM IV.	
as your POTW violated any of its NPDES permit limits and/or toxicity test requirements?				through from industri
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as your POTW violated any of its NPDES permit limits and/or toxicity test requirements?				
			·	
	Has your POTW viola	ated any of its NPDES ne	rmit limits and/or toxicity	test requirements?
		,	·	

ITEM VI.

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

Pollutant	Column (1) Effluent Data Analyses Maximum Average (ug/l) (ug/l)		Columns (2A) (2B) Water Quality Criteria (Gold Book) From TBLLs Today (ug/l) (ug/l)		
Arsenic					
*Cadmium				•.	
*Chromium					
*Copper		1			
Cyanide		·			
*Lead					
Mercury					
*Nickel					
Silver					
*Zinc					
Other (List)					
		:	The state of the s		
		···			

^{*}Hardness Dependent (mg/1 - CaCO3)

(Item VI. continued)

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

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

List in Column (2B) the current WQSs or "Chronic Gold Book" values for each pollutant multiplied by the dilution ratio used in your new/reissued NPDES permit. For example, with a dilution ratio of 25:1 at a hardness of 25 mg/l - Calcium Carbonate (copper's chronic WQS equals 6.54 ug/l) the chronic NPDES permit limit for copper would equal 156.25 ug/l.

ITEM VII.

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

ITEM VIII.

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

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

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

In general, please be sure the units reported are correct and all pertinent information is included in your evaluation. If you have any questions, please contact your pretreatment representative at EPA - New England.

ITEM VIII.

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

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

ATTACHMENT C

NPDES PERMIT REQUIREMENT FOR TRIAL PRETERATMENT ANNUAL REPORE

INDUSTRIAL PRETREATMENT ANNUAL REPORT

The information described below shall be included in the pretreatment program annual reports:

- 1. An updated list of all industrial users by category, as set forth in 40 C.F.R. 403.8(f)(2)(i), indicating compliance or noncompliance with the following:
 - baseline monitoring reporting requirements for newly promulgated industries
 - compliance status reporting requirements for newly promulgated industries
 - periodic (semi-annual) monitoring reporting requirements,
 - categorical standards, and
 - local limits;
- 2. A summary of compliance and enforcement activities during the preceding year, including the number of:
 - significant industrial users inspected by POTW (include inspection dates for each industrial user),
 - significant industrial users sampled by POTW (include sampling dates for each industrial user),
 - compliance schedules issued (include list of subject users),
 - written notices of violations issued (include list of subject users),
 - administrative orders issued (include list of subject users),
 - criminal or civil suits filed (include list of subject users) and,
 - penalties obtained (include list of subject users and penalty amounts);
- 3. A list of significantly violating industries required to be published in a local newspaper in accordance with 40 C.F.R. 403.8(f)(2)(vii);
- 4. A narrative description of program effectiveness including present and proposed changes to the program, such as funding, staffing, ordinances, regulations, rules and/or statutory authority;
- 5. A summary of all pollutant analytical results for influent, effluent, sludge and any toxicity or bioassay data from the wastewater treatment facility. The summary shall include a comparison of influent sampling results versus threshold inhibitory concentrations for the Wastewater Treatment

System and effluent sampling results versus water quality standards. Such a comparison shall be based on the sampling program described in the paragraph below or any similar sampling program described in this Permit.

At a minimum, annual sampling and analysis of the influent and effluent of the Wastewater Treatment Plant shall be conducted for the following pollutants:

- a.) Total Cadmium
- f.) Total Nickelg.) Total Silverh.) Total Zinc
- b.) Total Chromium
 c.) Total Copper

- d.) Total Lead
- i.) Total Cyanide
- e.) Total Mercury
- (i.) Total Arsenic

The sampling program shall consist of one 24-hour flowproportioned composite and at least one grab sample that is - representative of the flows received by the POTW. The composite shall consist of hourly flow-proportioned grab samples taken over a 24-hour period if the sample is collected manually or shall consist of a minimum of 48 samples collected at 30 minute intervals if an automated sampler is used. Cyanide shall be taken as a grab sample during the same period as the composite sample. Sampling and preservation shall be consistent with 40 CFR Part 136.

- A detailed description of all interference and pass-through that 6. occurred during the past year;
- A thorough description of all investigations into 7. interference and pass-through during the past year;
- 8. A description of monitoring, sewer inspections and evaluations which were done during the past year to detect interference and pass-through, specifying parameters and frequencies;
- 9. A description of actions being taken to reduce the incidence of significant violations by significant industrial users; and,
- 10. The date of the latest adoption of local limits and an indication as to whether or not the Town is under a State or Federal compliance schedule that includes steps to be taken to revise local limits.

North Attleborough Response to Comments

On September 12, 2006, the following comments were received from Woodard and Curran on behalf of the Town of North Attleborough:

Comment #1: The Town is committed to maintaining its Wastewater Treatment Facility (WWTF) in an environmentally responsible manner, as can be seen from the Project Evaluation Report (PER) provided to the United States Environmental Protection Agency (USEPA) dated June 2004 outlining planed voluntary improvements to the process equipment for FY2003 to FY2008. Although not required to do so, the Town budgeted approximately \$1.5M to \$1.9M per year for 6 years funded through sewer user fees for these upgrades. The first four phases of improvements were envisioned to move the treatment process to biological phosphorous removal (BPR) with single point chemical addition at the secondary clarifiers in an effort to obtain the maximum level of phosphorus and nitrogen removal. Currently it is envisioned that the Phase 4 improvements will be completed by early 2007. As indicated in the PER, the upgrades performed to achieve BPR have been designed so that they can be converted to a biological nutrient removal system to also achieve nitrogen removal. Until these upgrades to the facility are designed and installed, the Town's current facility cannot reliably meet a total nitrogen effluent limit.

Although the Town is committed to working with the USEPA and the DEP in designing its upgraded facility so as to achieve the maximum level of environmental protection technologically feasible, the Town is not willing to discuss the issuance of an Administrative Consent Order. The Town is not currently in violation of any established standard or regulation and there is no evidence that the Town's current treatment practices are resulting in any environmental harm. The Town has been proactive in designing and building an upgraded treatment plant that will provide processes that far exceed current treatment standards. The Town has expended significant resources in this regard and should not be penalized through the issuance of an ACO.

Response #1: We recognize and commend the Town's proactive commitment to investing the funds necessary to maintain and improve the performance of its wastewater treatment facility (WWTF). As is reflected in the Town's comment above, however, we do not believe that the WWTF will be able to immediately achieve the new effluent limitations for phosphorus and nitrogen. Accordingly, we believe the WWTF will be in violation of these new limits as soon as the permit is effective. The purpose of an administrative compliance order would not be to penalize the Town but to grant it a reasonable schedule to attain compliance with the new effluent limitations.

In this case, EPA cannot include a compliance schedule to meet the total nitrogen limit in the permit. Compliance schedules to meet water quality based effluent limits may be included in permits only when the state's water quality standards clearly authorize such schedules. The total nitrogen limit is based on Rhode Island's water quality standards. Rhode Island's standards, in turn, do not allow for schedules in permits. While a schedule for phosphorus could be included in the permit, there are many overlapping

issues related to the planning, design and construction of the necessary upgrades to meet the limits for phosphorus and nitrogen. In light of these overlapping issues and the fact that EPA cannot include a schedule for nitrogen in the permit itself, EPA intends to include a reasonable compliance schedule to meet both the phosphorus and nitrogen limits in a separate administrative order. Such a schedule would be developed in consultation with the Town.

Comment #2: Page 1 of 13 – The authorization should be changed from "Board of Selectmen" to "Board of Public Works."

Page 1 of 13 – The co-permittee should be changed from "Board of Selectmen 142 South Street P.O. Box 1717" to Board of Sewer Commissioners 17.1 East Bacon Street."

Response #2: The requested changes have been made.

Comment #3: The Town objects to the requirement of monitoring for BOD and Fecal Coliform three times per week, all year round, and requests that such monitoring be reduced to two times per week from May 1 – October 31, and no monitoring during the winter months, November 1 – April 30. The testing frequency set forth in the Draft Permit is arbitrary and capricious and it does not appear that a modification of the Town's permit is required for any of the reasons stated in 40 C.F.R. §122.62. In the absence of evidence that there is a pattern of increasing discharges of BOD and Fecal Coliform, there is no basis for increasing the testing frequency for such discharges. Moreover, the Town is aware of no evidence to suggest that BOD and coliform are parameters which are in need of tracking in a cold environment. Notwithstanding said objection and without waiving the same, if the Town is required to perform coliform monitoring during the winter months, it requests that such testing be limited to a maximum of one sample per week during that period due to safety issues associated with access to the testing location.

Response #3: This action is a permit reissuance following the expiration of a prior NPDES permit. The regulations set forth at 40 C.F.R. §122.62 do not apply as they relate only to modification or revocation/reissuance of permits prior to the expiration date. As detailed in EPA's regulations at 40 C.F.R. §122.62, permit modifications or revocation/reissuance may be made during the term of the permit but only for cause. Once a NPDES permit has expired, however, EPA revisits all aspects of the permit in evaluating an application for its reissuance, consistent with the goal of the Clean Water Act to restore and maintain the chemical, physical and biological integrity of the nation's waters.

Effluent monitoring, in both warm weather and cold weather, is necessary to ensure compliance with effluent limits established consistent with water quality standards and criteria. In any event, the permit limits and monitoring frequency for both BOD and fecal coliform are the same as in the previous permit. As documented in the fact sheet, periodic violations of the permit limits do occur and are more prevalent in cold weather. Consistent compliance with the permit limits is made more difficult by the significant

changes in influent flow volumes that have occurred on a daily basis due to the high levels of infiltration and inflow in the sewer system. Therefore, the monitoring requirements of the draft permit have been maintained in the final permit.

Comment #4: Total Phosphorous permit limits are proposed to change from average monthly/average weekly/maximum daily of 1 mg/l.5 mg/l and 2 mg/l to 0.2 mg/l/--/report and increase testing from twice per week to three times per week for the time period April 1 to October 31 and winter limits from November 1 to March 31 of 1 mg/l - 1.5 mg/l and 2 mg/l to 1 mg/l and report.

At the outset, there is no regulatory basis for imposing a more stringent phosphorus discharge standard. Prior to adopting new effluent standards, the USEPA is required to go through the formal process set forth in 40 C.F.R. §§104.1 – 104.16. Such process requires notice and opportunity for public comment, and a detailed statement of the basis and purpose of the standard, including identification of the scientific and technical data and studies supporting the proposed standard. The USEPA did not go through this process with respect to the phosphorus discharge standard. Therefore, as the Town's current phosphorus discharge requirements are consistent with applicable standards, the Town requests that the standard set forth in its original permit remain unchanged.

Moreover, the more stringent phosphorus standard set forth in the Draft Permit is arbitrary and capricious and it does not appear that a modification of the Town's permit is required for any of the reasons stated in 40 C.F.R. §122.62. On Page 5 of the Fact Sheet, the USEPA acknowledges that one or more TMDLs must be prepared to attain water quality standards for the Ten Mile River and that "[n]o TMDL has been completed nor is any underway." In the absence of a TMDL, the USEPA appears to rely solely upon broad generalizations from "national guidance" that has no relation to the specific environmental impacts of the Town's wastewater discharge.

Although the fact sheet states that "It is clear that the existing limits must be made more stringent to address the documented eutrophication problems in the receiving water," there is no evidence to support this statement. The EPA itself says in the Fact Sheet page 11 "Phosphorous discharges to the Ten Mile River are expected to be significantly lower during the term of this permit than they were during the 1995 to 1996." If this is the case, then why have more stringent limits rather than maintain as they have been since there has been improvement. As there is no evidence that the Town's phosphorus standard needs to be more stringent, the Town believes that the new limits are being applied arbitrarily and should not be included in the Final Permit.

Notwithstanding said objections and without waiving the same, the Town requests that the frequency of the sampling remain at twice per week and the Town be given eighteen months from the effective date of this permit to meet the new discharge limits.

Response #4: The regulations at 40 C.F.R. §§104.1 - 104.16, which the Town references in its comment above, pertain to public hearings associated with the development of national effluent standards for toxic pollutants by EPA. These

regulations do not pertain to development of an effluent limit for a non-toxic pollutant (such as phosphorus) based on state water quality standards. In addition, 40 C.F.R. §122.62 is not applicable to this permit reissuance (see the response to comment #3 above). The relevant regulations governing development of phosphorus limits in this permit are set forth at 40 C.F.R. § 122.44.

Further, while a TMDL is required for waterbodies that are not achieving water quality standards, a TMDL is not required for EPA to establish water quality-based limits. Where a TMDL has been established, EPA is required to ensure that the effluent limits are "consistent with the assumptions and requirements of any available wasteload allocation" applicable to the discharger. 40 CFR §122.44 (d)(1)(vii)(B). Where a TMDL does not exist, EPA cannot abdicate its responsibility to establish effluent limits necessary to achieve water quality standards and protect existing and designated uses of the receiving water. To the contrary, the relevant regulations require that EPA include an effluent limit for any pollutant which EPA determines "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." 40 CFR 122.44(d)(1)(i).

The Commonwealth's water quality standards include a narrative criterion which provides that nutrients "shall not exceed the site specific limits necessary to control accelerated or cultural eutrophication." 314 CMR 4.05(5)(c). Massachusetts' standards also require that "any existing point source discharges containing nutrients in concentrations which encourage eutrophication or growth of weeds or algae shall be provided with the highest and best practicable treatment to remove such nutrients." 314 CMR 4.04.

Evaluations of the receiving stream conducted by MassDEP indicate it is not attaining water quality standards due to phosphorus. The segment of the Ten Mile River from the North Attleborough facility to the MA/RI border is listed on the Massachusetts Year 2004 Integrated List of Waters (which incorporates the CWA §303(d) list) as impaired due to, among other things, nutrients, organic enrichment/low DO and noxious aquatic plants. The impacts associated with the excessive loading of phosphorus are documented in the Ten Mile River Basin 1997 Water Quality Assessment Report published by Mass DEP in March 2000. These include violations of the minimum dissolved oxygen criteria, dense filamentous algal cover in some shallow free flowing reaches of the river. and eutrophic conditions in downstream impoundments. In June 2006, MassDEP published a 2002 Water Quality Assessment Report for the Ten Mile River. This report documents the continuation of the severe eutrophic conditions that were noted in the previous assessment conducted in 1997. This includes excessive levels of phosphorus, chlorophyll a, duck weed, and filamentous green algae. In addition, the 2002 report indicates that the biological community is impaired in the river reaches below the North Attleborough and the Attleboro discharges.

Effluent monitoring conducted by the facility for the period 1995 through 2000 reflects excursions of total phosphorus in the facility's discharge above 1.0 mg/l. Between May

and October 2001, the facility consistently met the 1.0 mg/l limit. In addition, in 2002, total phosphorus concentrations in North Attleboro's discharge ranged between 0.7 mg/l and 0/9 mg/l. Effluent data for the period May 2003 to April 2004 show a range of 0.6 to 1.1 mg/l total phosphorus. Thus, even after the facility began in 2001 to meet the 1.0 mg/l limit in the expired permit very consistently, MassDEP documented ongoing severe eutrophic conditions in the receiving stream. See 2002 Water Quality Assessment Report. Thus, the discharge limit of 1.0 mg/l for phosphorus in the expired permit is not stringent enough to prevent the discharge of phosphorus at a level that contributes to cultural eutrophication in contravention of Massachusetts water quality standards.

In establishing an effluent limit necessary to achieve Massachusetts' water quality standard, EPA considered national guidance documents which recommend total phosphorus criteria for receiving waters. These include the 1986 Quality Criteria of Water (the Gold Book) and EPA's "Ecoregional Nutrient Criteria." These national guidances recommend instream phosphorus concentrations ranging from 0.1 mg/l to 0.24 mg/l. EPA also considered MassDEP's interpretation of the "highest and best practicable treatment" requirement in the Commonwealth's water quality standards. In the context of other permitting decisions where a TMDL has not yet been completed, MassDEP has consistently interpreted this requirement as an effluent limit of 0.2 mg/l for phosphorus. Based on the impairments in the receiving stream and the lack of available dilution, EPA has concluded that, at a minimum, a reduction to no more than 0.2 mg/l for phosphorus is required at the North Attleborough facility in order to achieve water quality standards. There is no significant dilution of North Attleborough's discharge in the Ten Mile River under 7Q10 conditions; rather, the flow is effluent-dominated. (See Att. B to Fact Sheet). If MassDEP adopts numeric criteria, a TMDL is completed, or additional water quality information shows that the phosphorus limits are not stringent enough to meet water quality standards, more stringent limits may be imposed.

In its comment, the Town questions whether restrictions on the discharge of phosphorus are warranted in light of a statement on page 11 of the Fact Sheet that "Phosphorus discharges to the Ten Mile River are expected to be significantly lower during the term of this permit than they were during the 1995-96 period...." This statement in the Fact Sheet refers to the anticipated phosphorus reductions that will result from the reissuance of this permit and the Attleboro permit.

In addition to the seasonal total phosphorus limit of 0.2 mg/l, the permit contains a winter period total phosphorus limit of 1.0 mg/l for November through March. The winter limit is necessary to ensure that phosphorus discharged during the winter period does not accumulate in downstream sediments. The limitation is higher than the seasonal limit of 0.2 mg/l because EPA has assumed, based on experience with other treatment facilities, that achieving a limit of 1.0 mg/l will result in the removal of the majority of the particulate fraction of phosphorus in the discharge. For instance, water quality surveys conducted in the Assabet River indicate that 90% of the total phosphorus in the discharge of four wastewater treatment facilities was in the dissolved form. See Assabet River TMDL for Total Phosphorus, Report Number: MA82B-01-2004-01. As a result, EPA

believes the phosphorus discharged will be predominately dissolved and should pass through the system and not accumulate in the sediments.

Frequent monitoring for those pollutants having the most severe impact on water quality is appropriate, especially considering the influent flow variability of this treatment facility and the effect that variable flow can have on treatment efficiency. The monitoring frequency in the final permit remains the same as in the draft permit.

As discussed in response #1 above, EPA will establish a reasonable compliance schedule in an administrative order to enable the Town to achieve the final effluent limits for both phosphorus and nitrogen.

Comment #5: Dissolved Ortho Phosphorous is a new parameter required for testing. As stated above, the Town disputes the validity of the Total Phosphorous limit, and therefore, objects to the Dissolved Ortho Phosphorus testing parameter for the same reasons. Notwithstanding said objections and without waiving the same, if this parameter is included in the Final Permit, the Town requests that sampling be conducted at a maximum of once per month.

Response #5: With regard to validity and rationale for the total phosphorous limit, see response to comment #4 above. Monitoring of orthophosphorus is critical to ensuring that the winter period phosphorus loads do not include significant quantities of particulate phosphorus. The winter period limitation in the permit assumes that the vast majority of phosphorus discharged will be in the dissolved fraction and will not accumulate in sediments. Monitoring for dissolved orthophosphorus is necessary to verify the dissolved fraction. Accordingly, the monitoring frequency in the final permit remains the same as in the draft permit.

Comment #6: Zinc and Cadmium have been changed from reporting maximum daily to limits on average monthly with an increase of testing from 1 per 2 months to 1 per month. The Town objects to this change on the grounds that it is arbitrary and capricious and it does not appear that a modification of the Town's permit is required for any of the reasons stated in 40 C.F.R. §122.62. As you know the North Attleboro WWTF is one of the few which has metals limits based on actual in-situ testing conducted by DEP in the 1980's. The limits of this site-specific testing are incorporated in the current permit and should be carried over to the new permit. There is no evidence of a pattern of increasing presence of these metals since that time and the presence of these metals has not caused a problem at the WWTF over the past nine years. As such, there is no reason to believe that the Town's current testing practices are not sufficient to address any future problems with these metals. Rather than crediting the site-specific information developed for the Town, it appears that the USEPA is basing the reduced limit on the National Recommended Water Quality Standards which are not site specific. Such broad generalizations are wholly inappropriate where site specific information is available. Therefore, as there is no justifiable reason to increase the frequency and limits of these two metals, the Town requests that this provision not be included in the Final Permit. Notwithstanding said

objections and without waiving the same, the Town requests that the testing for these two constituents remain at the current testing frequencies and reporting requirements.

Lead has been changed from reporting once per year to an average monthly limit. The Town objects to this requirement for the reasons set forth above.

Copper has been reduced from 20 mg/l average monthly and maximum daily to 9.9 mg/l and 14.8 mg/l respectively. The Town objects to this requirement for the reasons set forth above. Therefore until further testing is conducted the Town requests that the permit level for Copper remain at 20 mg/l.

Aluminum has been reduced from 140 mg/l average monthly to 92 mg/l average monthly. The Town objects to this requirement for the reasons set forth above.

Response #6: Section §122.62 of 40 C.F.R. is not applicable to this permit reissuance. (See response to comment #3 above).

Massachusetts water quality standards provide that limits for metals should be based on recommended limits (i.e., criteria) published by EPA pursuant to Section 304(a) of the CWA, unless site specific criteria are established. See 314 CMR 4.05(5). In those cases where MADEP does develop site specific criteria, MADEP's regulations require that such an effort is documented and subject to full intergovernmental coordination and public participation. Site specific criteria are revisions to the state's water quality standards and as such must be submitted to and approved by EPA in order to be effective for Clean Water Act purposes. See 314 CMR 4.05(5)(e)4. While there were site specific studies conducted in the past, MADEP never revised its water quality standards to include site specific criteria.

In addition, the metals limits in the previous permit were based on an analysis that is not consistent with current policies and guidance relative to developing site specific metals criteria. EPA's Water Quality Standards Handbook (1994) identifies three methods that are acceptable for determining site specific metals criteria, including: the Recalculation Procedure, the Water Effect Ratio Procedure and the Resident Species Procedure. The methodology used in developing metals limits in the previous permit do not accord with any of these three procedures.

Further, the Ten Mile River below the North Attleborough WWTP to the MA/RI border continues to be listed on the Massachusetts 303(d) list of impaired waters for metals and the dilution calculation appended to the Fact Sheet shows that effluent from the North Attleborough and Attleboro treatment plants represents almost all the flow in the receiving water during low flow conditions. These factors demonstrate that the limits developed for the previous permits are not protective of water quality standards and that the revised limits are warranted.

In the absence of approved site specific limits, EPA calculated metals limits based on the recommended water quality criteria found in the National Recommended Water Quality

Criteria 2002. These limits were used where a reasonable potential analysis demonstrated that limits are necessary and where the calculated limits were more stringent than limits in the expired permit. For copper, aluminum and zinc, the facility's discharge data indicate that the facility has a reasonable potential to cause or contribute to a violation of water quality standards. (DMR data for these metals are appended to the Fact Sheet as Attachment A). With regard to lead, little effluent data are available as the previous permit did not have limits or monitoring requirements for lead. EPA relied on data from the whole effluent toxicity reports conducted during low flow conditions during 2003 and 2004. (The data also are reflected on Attachment A of the Fact Sheet). These data indicated a reasonable potential for the facility to cause or contribute to a violation of water quality standards. With reference to cadmium, the facility's discharge data shows that the discharge was consistently reported below the minimum level (ML) of 1 ug/l under the previous permit. Because the calculated monthly average limit is 0.3 ug/l, EPA cannot be certain there is no reasonable potential for the discharge of cadmium to cause or contribute to a violation of water quality standards. In addition, the new permit requires an ML of 0.5 ug/l for cadmium in light of improvements in analytical procedures.

With regard to monitoring requirements, given the documented impairment and the establishment of more stringent limits on metals being discharged, an increase in the monitoring frequency to once per month is reasonable.

Comment #7: Total Nitrogen has been changed from report only on a 1 per month basis to average monthly limit of 8 mg/l with testing three times per week. The Town objects to this change on the grounds that it is arbitrary and capricious and it does not appear that a modification of the Town's permit is required for any of the reasons stated in 40 C.F.R. §122.62. The Town questions the validity of the Water Quality Assessment for the Bay and how it relates to the Ten Mile River POTWs. Your in-stream evaluation is based on a number of assumptions that are not scientifically supported. Although attenuation was taken into consideration you indicate that it was based on the fact that five POTWs in Massachusetts contribute a total nitrogen loading of 38% of the total nitrogen limit in Narragansett Bay. Reference to the total nitrogen loading of the five POTWs overstates the Town's contribution, which makes up only a very small percentage of the total load. Therefore, the Town requests that EPA re-evaluate this limit in light of North Attleborough's actual contribution. Much of the limit identification is based on assumptions and model rather than actual results. As such, the baseline of 15 mg/l is overstated and it is readily apparent that North Attleboro's contribution is less than assumed by EPA (compared to Upper Blackstone and others). Therefore, the Town requests that the permit be stayed on Total Nitrogen until additional studies have been conducted to assess more realistic effects of attenuation from the POTW to the Bay and to assess the impact of the capital project described in the introductory paragraph of this response.

Notwithstanding said objections and without waiving the same, the Town has investigated how meeting new stringent Nitrogen limits could be accommodated. As you know, the Town indicated in their PER of 2005 that nitrogen removal cannot be achieved

at the WWTF without a capital expenditure to do so. As such, if a limit is implemented on Total Nitrogen under this permit, the proposed time frame of immediate compliance upon finalization of the permit does not provide sufficient time for the Town to appropriate necessary funds for the work or to complete a comprehensive assessment of nitrogen loadings and potential pilot testing for removal capabilities that include a field trial program. Given where the Town is in its budget cycle, funds for completion of this work cannot be made available until 180 days after the effective day of this permit. The assessment of nitrogen removal would not be completed until 365 days following the budget appropriation with a report submitted within 120 days of finalization of the report with completion of construction within three years of the effective date of the permit.

Response #7: Section 122.62 of 40 C.F.R. is not applicable to this permit reissuance. (See response to comment #3 above).

In establishing the nitrogen limit, EPA used an attenuation rate in the Ten Mile River of 40%. Attenuation accounts for the degree of nitrogen removal due to uptake or denitrification in the river between the discharge and the mouth of the river. The rate is based on actual loadings as the purpose is to estimate actual attenuation in the river. (The Town incorrectly suggests in its comment that the attenuation rate is based on design flow.) Determination of attenuation was based on stream data collected in 1995-1996 and estimated effluent data based on 2000-2002 reported effluent data (see December 2004, RIDEM report – Evaluation of Nitrogen Targets and WWTF Load Reductions for the Providence and Seekonk Rivers). It was necessary to use the 2000-2002 reported effluent data to estimate 1995-1996 effluent levels since the Attleboro and North Attleborough WWTFs were not monitoring nitrogen in 1995-1996.

In its comment, the Town refers to a calculation which estimates the significance of the combined nitrogen load from the five POTWs in Massachusetts. This calculation is based on all of the POTWs discharging at full design flow. This calculation was not used to determine attenuation, but rather to demonstrate the significance of loadings from Massachusetts sources if they were to discharge at full design flow. The fact that North Attleborough's current discharge level of nitrogen (average = 11 mg/l) is less than the 15 mg/l value assumed in the calculation likely reflects the fact that the WWTF is operating at less than the full design capacity. It is unlikely that the current performance could be maintained if the WWTF were operating at full design capacity.

In determining the nitrogen limit, EPA did take into account the significance of the North Attleborough nitrogen contribution. EPA recognizes that North Attleborough has a smaller design flow and corresponding nitrogen loading than some of the other facilities discharging to the Providence/Seekonk River system. Also important is the location of the North Attleborough discharge. The Ten Mile River flows into the Seekonk River, which is the most impaired section of the Providence/Seekonk River system. The 2004 DEM study includes evaluation of various combinations of nitrogen reduction from the significant point sources of nitrogen to the system. These include seven Rhode Island and three Massachusetts wastewater treatment facilities, including North Attleborough. (See Evaluation of Nitrogen Targets and WWTF Load Reductions of the Providence and

Seekonk Rivers, DEM, December 2004). EPA established a nitrogen limit of 8.0 mg/l for the North Attleborough facility based on consideration of both the facility's nitrogen contribution and the location of the discharge. RI DEM has proposed nitrogen limits of 5.0 mg/l for facilities with larger design flows that also discharge to the Providence/Seekonk River system.

With regard to use of modeling to establish effluent limits, EPA considered the results of a physical model operated by the Marine Ecosystems Research Laboratory (MERL) at the University of Rhode Island. This enrichment gradient experiment included a study of the impact of different loadings of nutrients on DO and chlorophyll a. (See Evaluation of Nitrogen Targets and WWTF Load Reductions for the Providence and Seekonk Rivers, RI DEM, December 2004). In establishing the nitrogen limit in this permit, EPA also considered actual measurements of nitrogen loading from point source discharges, including a 1995-96 study by DEM Water Resources.

Both the MERL tank experiments and the data from the Providence/Seekonk River system indicate a clear correlation between nitrogen loadings, chlorophyll a levels, and dissolved oxygen impairment. Low dissolved oxygen levels, as well as supersaturated dissolved oxygen levels, are an indicator of cultural eutrophication. The MERL tank experiments showed a clear correlation between nitrogen loading rates and dissolved oxygen variability. In addition, sampling in the Providence/Seekonk River system documents both extremely low and extremely high dissolved oxygen levels. A stronger indicator of cultural eutrophication is phytoplankton chlorophyll a levels. The RIDEM data from 1995-96 indicates that photoplankton chlorophyll a levels in the Seekonk River ranged from 14 ug/l to 28 ug/l with the highest levels in the upper reaches of the river and the lowest levels in the lower reaches of the river. The chlorophyll a levels in the Seekonk River correlate with total nitrogen levels as well as dissolved inorganic nitrogen levels. Again, this response is consistent with the MERL tank experiments that showed a correlation between nitrogen loading rates and chlorophyll a levels. Peak chlorophyll a levels in the Providence/Seekonk River system exceeded 200 ug/l. Coastal areas without high nutrient loads could be expected have chlorophyll a levels in the 1 to 3 ug/l range (Nutrient Criteria Technical Guidance Manual - Estuarine and Coastal Marine Waters, USEPA, October 2001).

EPA recognizes that the MERL tank experiments cannot completely simulate the response of chlorophyll <u>a</u> and dissolved oxygen to nitrogen loadings in a complex, natural setting such as the Upper Narragansett Bay. For instance, low dissolved oxygen levels are not just driven by phytoplankton respiration (as measured by chlorophyll <u>a</u>), but also by phytoplankton that has settled to the bottom and exerts a dissolved oxygen demand as it undergoes the decay process. In this regard, use of a physical model introduces some uncertainty in determining the precise level of nitrogen controls which may ultimately be needed in the River. Both the MERL Tank experiments and the data from the River system, however, indicate a clear correlation between nitrogen loadings, chlorophyll <u>a</u> levels and dissolved oxygen impairment. Accordingly, the MERL tank experiments are an appropriate tool for evaluating the relationship between nitrogen loadings and cultural eutrophication indicators. While the uncertainties in the model may ultimately mean that

additional nitrogen reductions are needed beyond those required by this final permit, it is EPA's judgment that based on the available evidence, water quality standards cannot be met with a less stringent nitrogen limit than 8.0 mg/l.

Please see response to comments #1 and #4 relative to schedules for compliance.

Comment #8: Page 3 of 13 – The Town has a routine sampling program which will be summarized and submitted as part of the requirement of the permit. Currently sampling is taken at the same location, time and day of the month when feasible.

Response #8: Comment is noted for the record. Please note that the permit requires the Town to document any deviations from the routine sampling program in correspondence to EPA (i.e., the Town should document any instances when it believes routine sampling was not feasible). In addition, please note that the final permit requires monitoring for dissolved oxygen in the early morning; this requirement should be incorporated into the routine sampling plan. (See response to comment # 19 below).

Comment #9: Page 4 of 13 – Footnote 1 – provides that the Town shall report flow MGD as a "rolling average." The Town currently calculates flow as a monthly average. The Town objects to this change on the grounds that it is arbitrary and capricious and it does not appear that a modification of the Town's permit is required for any of the reasons stated in 40 C.F.R. §122.62. The Town's current practice accurately reports flow MGD, and the rolling average does not appear to be an effective tool for operating the Town's process. Therefore, this change should not be included in the Final Permit.

Response #9: As discussed previously, the regulations at 40 CFR §122.62 do not apply to this permit reissuance. (See response to comment #3 above).

The proposed change from a monthly average limit to an annual rolling average limit was made in order to be consistent with the basis for the design flow developed in facilities planning and utilized in the design of the treatment facility. Design flow calculations typically incorporate annual average infiltration and inflow rates and not maximum monthly infiltration and inflow rates. However, the requested change has been made in the final permit. In addition, the final permit does not include the corresponding mass limits for BOD, TSS and ammonia; mass limits are necessary with a rolling flow limit in order to maintain approximate overall pollutant loadings in the receiving water. As the rolling flow limit has been deleted, these mass limits are not needed.

Comment #10: Page 4 of 13 – Footnote 3 – In addition, because current sampling locations for fecal and chlorine are different and therefore sampling is conducted within as close of a time period as is possible for current operations.

Response #10: Although the comment references footnote #3, it is clear that the comment is referring to footnote #5. Footnote #5 has been modified to address this concern.

Comment #11: Page 7 of 13 – Development of Limitations for Industrial Users paragraph b. The Town requests that the date for submission of a written technical evaluation to the EPA analyzing local limits be changed from 120 days to 180 days. Moreover, if the evaluation reveals the need to change the local limits, the Town will be unable to implement the required changes within the time stated in the Draft Permit. An appropriation for finalization of the limits and implementation for public notice would require appropriation a potential completion date of 395 calendar days from completion and acceptance by the EPA of the written technical evaluation. Therefore, the Town requests that the Final Permit be adjusted accordingly.

Response #11: The technical evaluation is a straightforward analysis that should require very little time. The Town simply needs to complete and submit the form appended to the permit as Attachment B. Data required for completing the form should be readily-available to the facility. Accordingly, the 120 day period in the draft permit for completing this evaluation is more than sufficient time and this permit requirement remains unchanged. In its comment above, the Town also requests an extension to the 120 day period to revise local limits in the event revisions are necessary. The 120 day period to revise local limits is the typical time period for such revisions and the Town has not raised unique circumstances in this case requiring additional time. In order to address the Town's concerns that 120 days is insufficient to allow for finalization and public notice of any revisions, however, the final permit provides for a total of 300 days to complete the evaluation process. If specific circumstances arise during the local limits revision process that the Town believes warrant an additional extension, the Town should bring such information to EPA's attention.

Comment #12: Page 4 of 13 – Footnote 3 - The Town objects to the requirement of implementing flow-paced sampling of the waste generated at the WWTP, as such a requirement is arbitrary and capricious. The Town has a very consistent effluent from the plant and the current sampling method is adequate to assess the waste generated. There is no evidence that samples collected under the current method are inaccurate or that a modification of the Town's permit is required for any of the reasons stated in 40 C.F.R. §122.62. Therefore, the Town requests that this requirement not be included in the Final Permit. Notwithstanding said objection and without waiving the same, if flow paced testing is required, the Town will need time to set up samplers for flow pacing because the existing equipment is not able to perform this function. As such, if included in the Final Permit, the Town should be given 180 days to come into compliance with this requirement.

Response #12: As discussed previously, the regulations at 40 CFR §122.62 do not apply to this permit reissuance. (See response to comment #3 above).

Flow weighted composites were required by the previous permit. (See Part II Section E., definition of composite sample). This requirement is particularly important due to variations in influent flows within any given day. Therefore, the requirement of flow-weighted monitoring is maintained. As this requirement is not new, we do not believe that a schedule in the permit is warranted. We appreciate the Town will need to make

changes to sampling equipment and encourage the Town to do so as expeditiously as possible.

Comment #13: Page 9 of 13 – Operation and Maintenance of the Sewer System – Infiltration/Inflow Control Plan. It is requested that the submission date of the plan be changed from within six months of the effective date of this permit to within one year of the effective date of this permit due to budgetary issues and the need for appropriations.

Response #13: The requested change has been made to the final permit.

Comment #14: Page 9 of 13 – Operation and Maintenance of the Sewer System – Infiltration/Inflow Control Plan Reporting Requirements. It is requested that the yearly report on I/I reduction be submitted by June 1st of each year.

Response #14: The requested change has been made to the final permit.

Comment #15: Page 12 of 13 – Sludge Conditions. Currently the Town operates their sludge process utilizing a calculation of dry tons. They see no reason to change to reporting to metric tons.

Response #15: Facilities using sludge disposal methods regulated under 40 CFR Part 503 are required to report sludge quantities in metric tons. Although the Town does not currently utilize a disposal method regulated by Part 503, the agencies prefer to have sludge data reported in the same units of measure by all facilities. The conversion from dry tons to metric tons is very straightforward. A metric dry ton is the equivalent of 1.1 U.S. dry tons.

Comment #16: Fact Sheet Page 1— The authorization should be changed from Board of Selectmen to Board of Public Works.

Fact Sheet Page 1 – The co-permittee should be changed from Board of Selectmen 142 South Street P.O. Box 1717 to Board of Sewer Commissioners 171 East Bacon Street.

Fact Sheet Page 13 - Strike "In future continuous chlorine monitoring maybe required"

Response #16: Fact sheets are documents that accompany draft permits and are not revised. The comments submitted during the public comment period are part of the administrative record pursuant to 40 CFR §124.18. Responses to these comments are given below.

EPA notes the change from "Board of Selectmen" to "Board of Public Works" and the address changes; appropriate changes will be made to the final permit.

Regarding the statement in the Fact Sheet that future permits may require continuous monitoring of chlorine residual, EPA is moving in this direction based on concerns with the adequacy of grab sampling for determining compliance with residual chlorine limits.

This statement was made so that the permittee would be aware that this condition will likely be in future permits and will take this into consideration when implementing any upgrades to the facility. Such a requirement would only be imposed after public notice and opportunity for the Town and others to comment on it.

On September 12, 2006, the following comments were received from the Rhode Island Department of Environmental Protection:

Comment #17: The Rhode Island Department of Environmental Management (DEM) has reviewed the permit limits contained in the draft permits referenced above and determined that many of these limits will result in violations of Rhode Island Water Quality Standards in RI waters. The Environmental Protection Agency (EPA) established all water quality-based permit limits using background concentration of zero and by allocating 100% of the criteria. As a result, the limits for the Attleboro facility were based on the assumption that the entire pollutant load from the North Attleborough facility was eliminated from the water column before reaching the Attleboro facility. This assumption is not reflective of actual conditions and when coupled with allocation of the entire criteria, results in permit limits that cause violations of RI Water Quality Standards. In addition, EPA has utilized an instream hardness value of 100 mg/l to compute the water quality criteria for metals. This value is significantly higher than values typically observed in RI waters and results in higher water quality criteria than DEM would anticipate. Please provide information to support the use of this hardness value.

The table below, compares the instream concentrations at the MA/RI state line that result from the draft permit limits, to the RI Water Quality Standards (please note that for the sake of this analysis the hardness of 100 mg/l was utilized based on the assumption that EPA will provide justification for using this value). The concentrations that will result at the state line were computed from a mass balance using a 7Q10 flow at the state line of 14.4 cfs (or 2.71 cfs, based on flow data collected from USGS gauge # 01109403 after subtracting out historical WWTF flows), the WWTF flows and pollutant concentration limits contained in the draft permits and are artificially low as the EPA assumption of pollution concentrations of zero upstream of the North Attleborough WWTF was also used. Attached is a spreadsheet that contains the details of this analysis.

	Ten Mile River Concentration at the RI Border ¹	RI Water Quality Standard	% Exceedance of RI Water Quality Standards
Phosphorus	0.177 mg/l	0.025 mg/l ²	606 %
Copper	10.5 ug/l	9.3 ug/l	12.9%
Lead	3.6 ug/l	3.2 ug/l	14.3%
Aluminum	98.5 ug/l	87 ug/l	13.2%
Zinc	135.5 ug/l	120 ug/l	13.1%
Cadmium	0.32 ug/l	0.27 ug/l	19.0%
Cyanide	5.2 ug/l	5.2 ug/l	0%

¹As noted above predicted concentrations are artificially low since the EPA assumption of pollutant concentrations of zero upstream of the North Attleborough WWTF was utilized.

²Rule 8.D.(2) of the Rhode Island Water Quality Regulations establishes the following criteria for Nutrients:

"Average Total Phosphorus shall not exceed 0.025 mg/l in any lake, pond, kettlehole or reservoir, and average Total P in tributaries at the point where they enter such bodies of water shall not cause exceedance of this phosphorus criteria, except as naturally occurs, unless the Director determines, on a site-specific basis, that a different value for phosphorus is necessary to prevent cultural eutrophication."

Determination of whether the water quality criterion of 25 ug/l is applicable to the Ten Mile River requires an evaluation of whether it flows into a lake, pond or reservoir (including whether run of the river impoundments constitute a lake, pond or reservoir). For the development of nutrient criteria, the EPA document titled Nutrient Criteria Technical Guidance Manual: Lakes and Reservoirs: First Edition has defined lakes as natural and artificial impoundments if they have a surface area greater than 10 acres and a minimum mean water residence time of 14 days. The Turner Reservoir on the Ten Mile Rivers meets both criteria and receives most of its flow from the Ten Mile River; therefore, the criterion of 25 ug/l must be met in the Ten Mile River at the point where it enters Turner Reservoir.

The table below is excerpt from the Final 2004 and the draft 2006 Rhode Island List of Impaired Waters ("303(d) list") and lists several waterbody segments that are impaired due to excessive metals and Phosphorus concentrations. As noted above the limits proposed by EPA would result in continued violation of many of these criteria even under the assumption that no other pollutant sources are present.

Waterbody ID	Waterbody Name	Cause		
TEN MILE RIVER BASIN				
R10004009L-01A	Turner Reservoir	EOW DO, Phosphorus, Lead (Pb), Copper (Cu) PATHOGENS		
RI0004009L-01B	Turner Reservoir	LOW DO, Phosphorus, Lead (Pb), Copper (Cu) PATHOGENS		
RI0004009L-02	Slater Park Pond	EXCESS ALGAL GROWTH/CHL-A, Phosphorus, PATHOGENS		
RI0004009L-03	Omega Pond	Phosphorus, Lead (Pb), Copper (Cu)		
R10004009R-01A	Ten Mile River	Lead (Ph), Copper (Cu), Cadmium (Cd)		
R10004009R-01B	Ten Mile River	BIODIVERSITY IMPACTS, Copper (Cu), Lead (Pb)		

As you know, pursuant to the NPDES regulations at 40 CFR 122.44(d) and 33USC Sec.1341(a)(2), NPDES limits must achieve compliance with water quality standards and limits must be included in permits where pollutants will cause, have reasonable potential to cause, or contribute to an exceedance of the State's water quality. As noted above the

limits contained in the draft permit will result in violations of RI water quality standards and therefore, the limits must be revised using a Waste Load Allocation (WLA) strategy that includes an appropriate margin of safety to account for any lack of knowledge concerning the relationship between effluent limits and water quality, ensures an equitable distribution of pollutant loads and that at a minimum meets all Rhode Island water quality criteria at the state line.

Response #17: Hardness data from the City of Attleboro quarterly toxicity tests conducted during the summer low flow period indicate that the average instream hardness above the North Attleborough discharge (Attleboro takes its dilution water from the Ten Mile River above the North Attleborough discharge) was 162 mg/l for 2002 – 2004 with a range of 100 mg/l – 253 mg/l. Using 100 mg/l for calculating the numeric criteria ensures that the criteria will be protective of instream uses. Assuming pollution concentrations of zero above the North Attleborough discharge has an insignificant effect on the calculations because the receiving water flow is very small compared to the discharge flow. At 7Q10, the upstream flow represents only 6% of the total flow in the river below the North Attleborough discharge. (See dilution calculation appended as Attachment B to Fact Sheet).

In its comment, Rhode Island calculates potential exceedances of Rhode Island water quality criteria for metals and phosphorus. (For metals, the criteria would apply at the state line; with regard to phosphorus, the Rhode Island criteria of 25 ug/l applies over a mile from the state line where the river enters Turner Reservoir.) Rhode Island's analysis, however, is based on an assumption that metals and phosphorus are 100% conservative in the water column. As phosphorus and metals are not completely retained in the water column, no changes are made to the phosphorus or metals limits in the final permit at this time. If, in the future, in stream data indicate that the Rhode Island criteria for metals and/or phosphorus are not being met, the permit limits will be made more stringent.

On September 12, 2006, the following comments were received from the Massachusetts Riverways Program:

Comment #18: Staff at the Riverways Programs, MA Department of Fish and Game, have reviewed the draft NPDES permit for the North Attleborough Wastewater Treatment Facility discharging into the Ten Mile River. We appreciate the opportunity to review and comment on the draft NPDES permit. Protecting the health of the state's rivers, near coastal waters and estuaries is the driving force behind the Riverways Programs' work. The potential for point source pollution discharges to negatively impact our waterways heightens the role of NPDES permits in resource protection efforts.

The Fact Sheet in this draft permit packet presents an ample picture of water quality issues in the receiving water for this discharge and the probable or potential impact the discharge poses to interstate waters and important resource areas. We are pleased to see permit limits instituting limitations below secondary treatment standards and are especially pleased to see daily maximum limits for several of the pollutants. It is clear

water quality based limits are needed if the Ten Mile River is to ever achieve water quality standards and the permit limits in this draft permit are a needed step.

Stricter limits on nutrients are especially welcome. With the negligible dilution available for this discharge and the known water quality issues, reductions in nutrient loads can not come quickly enough. The proposed limits are a positive step forward in reducing water quality impacts and we concur that the limits in this draft permit may prove inadequate and further reductions in loads may be required. We recognize the challenge nutrient reduction poses but the reductions called for in this permit are crucial to protecting the health and viability of the Ten Mile River and downstream waters in both Massachusetts and Rhode Island. Footnotes #8 and #10, asking the permittee to maximize treatment during the winter when less rigorous nutrient limits are in place, is another excellent addition to this permit and reflects the degraded conditions found in the receiving waters and the need to implement water quality based limitations.

Response #18: The comments are noted for the record.

Comment #19: The Ten Mile River is a severely impaired waterway. One of the water quality problems contributing to impairment is associated with low dissolved oxygen. The draft permit requires daily sampling of the effluent and a minimum concentration of 6.0 mg/l. Given the existing conditions in the river, this is a vital measure of the effluent quality. The permit does not provide guidance on when the dissolved oxygen daily grab sample should be taken. Should the dissolved oxygen concentration in the effluent naturally fluctuate, sampling during depressed DO times or matching the monitoring of the effluent with the typical low DO periods in the receiving water, (early morning) might provide more information on how the effluent could impact, either enhance or exacerbate, oxygen levels in the Ten Mile River. If the concentrations are quite static than explicit requirements on the timing of the sampling is not appropriate.

Response #19: We concur that the dissolved oxygen effluent sampling should be conducted in the early morning. Monitoring of effluent indicates that DO fluctuates. Monitoring of DO in the early morning, accordingly, is more likely to provide information related to the impact of DO in effluent on the River. Accordingly, the final permit includes a requirement that DO be measured in the early morning.

Comment #20: The waterway is also listed as impaired for unknown toxicity. This impairment is troubling as it indicates serious aquatic health concerns. The Whole Effluent Toxicity test data for this facility appears to indicate regular compliance with permit limits suggesting the effluent is not a source of the unknown toxicity. We wonder if testing with one species is sufficient to fully capture the possible toxicity of the effluent in the receiving water. Generally Ceriodaphnia dubia is the more sensitive of WET test species but since all discharges are unique, we wonder if testing has been done on other species to ascertain which is the most sensitive species in this instance? If no other species have been used in prior test, (or if testing with other species was done many years ago and the quantity and/or characteristics of the effluent have changed) than we would

advocate some additional testing with other species given the unknown toxicity impairment in the Ten Mile River and the extremely low dilution afforded the effluent.

Response #20: Testing was conducted for several years (1992 – 1999) using both ceriodaphnia dubia and fathead minnows. This data indicated that ceriodaphnia dubia is the more sensitive specie and as such we believe that testing with one specie only is sufficient to ensure that the aggregate discharge is not toxic.

On September 19, 2006, following comments were received from Save the Bay:

Comment #21: Save The Bay strongly supports the Draft NPDES Permits referenced above and applauds this first step by EPA and the Commonwealth of Massachusetts to join the effort to improve the water quality in Narragansett Bay.

As the fact sheets for these draft permits note, upper Narragansett Bay, including the Providence and Seekonk Rivers has suffered from severe cultural eutrophication for many years. While it is true that other factors such as increasing water temperatures, heavy rain events, and other natural factors play a role, there is no doubt that nutrient pollution from wastewater is a prime culprit in the fish and clam die-offs that have occurred over the last several years. Pursuant to new laws and policies calling for a 50% reduction in nitrogen loading to the Bay from Rhode Island treatment plants by 2008, several facilities have already switched or have committed to implement advanced practices of nitrogen removal. However, since 60% of the Narragansett Bay watershed is within the Commonwealth, both Rhode Island and Massachusetts must enforce strict nitrogen limits in order to achieve water quality goals for Narragansett Bay.

Response #21: The comments are noted for the record.

APPEALING AN NPDES PERMIT

If you wish to contest any of the provisions of this permit, you must petition the Environmental Appeal Board (EAB) within thirty (30) days. If you received notice of this permit via certified mail, the 30-day period begins on the date of receipt. If you were served by regular mail, the 30-day period begins the day after the date of mailing of the notice by EPA. Where notice is served by regular mail, note that an additional three days are added to the period within which to appeal in order to compensate for mail delay.

In order to be eligible to petition the EAB, you must have filed comments on the draft permit or participated in any public hearing that may have been held pertaining to this permit. In addition, the issues raised in the appeal must have been raised during the public comment period so long as they were reasonably ascertainable. Any person who failed to file comments or failed to participate in any public hearing on the draft permit may petition for administrative review only to the extent of changes from the draft to the final permit decision.

The petition shall include a statement of the reasons supporting that review, including a demonstration that any issues being raised were raised during the public comment period (including any public hearing) to the extent required by NPDES regulations and when appropriate, a showing that the condition in question is based on: (i) a finding of fact or conclusion of law which is clearly erroneous or (ii) an exercise of discretion or an important policy consideration which the EAB should review.

Procedures for appealing permits can be found at 40 CFR §§ 124.19, 124.20, and 124.60. Copies of the regulations are below. More information on the appeals process and EAB filing and service requirements can be found on the Internet at http://www.epa.gov/eab/. The Practice Manual can be found on the Internet at http://www.epa.gov/eab/manual.htm. The EAB website and the Practice Manual should be carefully reviewed prior to filing an appeal.

STAY OF NPDES PERMITS

The effect of a properly filed appeal of an NPDES permit on the conditions and effective date of the permit can be found at 40 CFR §§ 124.16 and 124.60. Copies of these regulations are below.

FREQUENTLY ASKED QUESTIONS

What is the Environmental Appeals Board?

The Environmental Appeals Board (EAB) of the U.S. Environmental Protection Agency (EPA) is the final Agency decisionmaker on administrative appeals under all major environmental statutes that EPA administers. It is an impartial body independent of all Agency components outside the immediate Office of the Administrator. It was created in 1992 in recognition of the growing importance of EPA adjudicatory proceedings as a mechanism for implementing and enforcing the environmental laws. The EAB sits in panels of three and makes decisions by majority vote.

The EAB's caseload consists primarily of appeals from permit decisions and civil penalty decisions. The EAB has authority to hear permit and civil penalty appeals in accordance with regulations delegating this authority from the EPA Administrator. Appeals from permit decisions made by EPA's Regional Administrators (and in some cases, state permitting officials) may be filed either by permittees or other interested persons. A grant of review of a permit decision is at the EAB's discretion. Permit appeals are governed primarily by procedural regulations at 40 C.F.R. Part 124. Appeals of civil penalty decisions made by EPA's administrative law judges may be filed, as a matter of right, either by private parties or by EPA. Penalty appeals are governed primarily by procedural regulations at 40 C.F.R. Part 22.

How can I contact the Board?

The Board's telephone number is (202) 233-0122. The Board's fax number is (202) 233-0121.

Where should I file a pleading in a matter before the Board?

a. EAB Mailing Address

All documents that are sent through the U.S. Postal Service (except by Express Mail) MUST be addressed to the EAB's mailing address, which is:

U.S. Environmental Protection Agency Clerk of the Board, Environmental Appeals Board (MC 1103B) Ariel Rios Building 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460-0001

Documents that are sent to the EAB's hand-delivery address (below) through the U.S. Postal Service (except by Express Mail) will be returned to the sender and shall not be considered as filed.

b. Hand Delivery Address

Documents that are hand-carried in person, delivered via courier, mailed by U.S. Postal Service Express Mail, or delivered by a non-U.S. Postal Service carrier (e.g., Federal Express or UPS) MUST be delivered to:

U.S. Environmental Protection Agency Clerk of the Board, Environmental Appeals Board Colorado Building 1341 G Street, N.W., Suite 600 Washington, D.C. 20005

Documents that are hand-carried may be delivered to the Clerk of the Board from 8:30 a.m. to 12:00 p.m. and from 1:00 p.m. to 4:30 p.m., Monday through Friday (excluding federal holidays).

Is there a fee for filing a petition or an appeal with the EAB?

No

How many copies of each filing and each exhibit must I file?

The Board requests one original and five copies of any filing. Where exhibits are more than 30 pages, the Board requests that three sets of exhibits be filed.

Is a pleading timely if it is postmarked by the specified filing date or must it be actually received by the Board by the filing date?

The postmark date of a pleading is not determinative. If the pleading has been mailed to the Board, it must be received in the EPA mail room by the specified filing date. The pleading is then date-stamped and forwarded to the Board. If the pleading is hand-delivered directly to the Board, it must be received at the Board's offices by the specified date. If the Board establishes a briefing schedule by order, any date the Board specifies for filing a pleading means the date by which it must be received, unless otherwise specified in the order.

NOTE: As previously stated, documents may be filed by hand-delivery with the Clerk of the Environmental Appeals Board only from 8:30 a.m. to 12:00 p.m. and from 1:00 p.m. to 4:30 p.m. Eastern Time Monday through Friday (excluding Federal holidays).

May I fax my petition for review, notice of appeal, or brief, to the EAB?

No. The Board will not accept petitions for review, notices of appeal, or briefs, for filing by facsimile.

May I fax a motion to the EAB?

Yes. The Board will consider motions that are faxed to the Board. However, if a motion is faxed to the Board, a copy of the motion should be placed in the mail or hand-delivered to the Board within 24 hours of faxing the motion. The copy need not be received by the Board within the 24 hour period. Copies of the motion should also be faxed to other parties.

Is there a required format for a petition for review or notice of appeal?

There is no required format for a petition for review or notice of appeal. However, the Board requests that these documents be typewritten and double-spaced on 8.5 x 11 paper. A petition for review should contain a caption that indicates the name of the case and the permit number. A notice of appeal in an enforcement matter should contain a caption that indicates the name of the case and the docket number. Both documents should contain the name, address, telephone number, and fax number (if any) of the person filing the pleading.

Is there a required format for exhibits?

There is no required format for exhibits. Each exhibit should be clearly marked with consecutive numbers or letters to distinguish it from other exhibits. Exhibits should be clearly referenced in the pleadings. If multiple exhibits are submitted, at least one complete set of exhibits should be rubber banded or clipped together, not spiral or "comb" bound.

Can I find out when the Board will issue a decision in my case?

No. The Board will take under consideration a motion for expedited consideration of a particular matter, based on unusual and compelling circumstances. The motion should clearly state why the party believes the case deserves expedited consideration. However, the Board will not routinely provide information as to when any particular matter will be decided.

Additional Mailing Requirements - Case Name and Case Identifier on Envelope or Outside Packaging.

Any envelope or other packaging containing documents sent to the EAB's mailing address or hand-delivery address, as prescribed above should bear a complete and accurate return address in the upper left hand corner. The envelope or packaging should also clearly state the case name and case identifier in the lower left hand corner.

In all instances, if an appeal has already been filed with the Clerk of the Board, the case name and case identifier are the name and appeal number assigned to the matter by the Clerk. If an appeal has not yet been filed, state the name of the permittee or facility and the permit number (e.g., NPDES Permit No. ID-0000-00). Other filing requirements are contained in the Environmental Appeals Board's Practice Manual.

May I appeal the Board's decision to the Administrator?

No. Decisions of the Board are final and may not be further appealed to the Administrator. However, the parties (other than EPA) have statutory rights of appeal to federal court.

What is the procedure for withdrawing a petition that has been filed with the Board?

The petitioner should file a motion requesting to withdraw the petition.

Whom may I call if I have additional questions that have not been answered here?

The Clerk of the Board is available to answer questions from 8:30 a.m. to 12:00 p.m. and from 1:00 p.m. to 4:30 p.m. Eastern Time Monday through Friday (excluding Federal holidays). Counsel to the Board are also available to answer general questions about the appeals process. Counsel will not discuss the merits or status of any matter before the Board. The Clerk of the Board and Counsel to the Board may be reached at (202) 233-0122.

TITLE 40--PROTECTION OF ENVIRONMENT CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY (CONTINUED) PART 124--PROCEDURES FOR DECISIONMAKING--Table of Contents

Subpart A--General Program Requirements

Sec. 124.16 Stays of contested permit conditions.

- (a) Stays. (1) If a request for review of a RCRA, UIC, or NPDES permit under Sec. 124.19 of this part is filed, the effect of the contested permit conditions shall be stayed and shall not be subject to judicial review pending final agency action. Uncontested permit conditions shall be stayed only until the date specified in paragraph (a)(2)(i) of this section. (No stay of a PSD permit is available under this section.) If the permit involves a new facility or new injection well, new source, new discharger or a recommencing discharger, the applicant shall be without a permit for the proposed new facility, injection well, source or discharger pending final agency action. See also Sec. 124.60.
- (2)(i) Uncontested conditions which are not severable from those contested shall be stayed together with the contested conditions. The Regional Administrator shall identify the stayed provisions of permits for existing facilities, injection wells, and sources. All other provisions of the permit for the existing facility, injection well, or source become fully effective and enforceable 30 days after the date of the notification required in paragraph (a)(2)(ii) of this section.
- (ii) The Regional Administrator shall, as soon as possible after receiving notification from the EAB of the filing of a petition for review, notify the EAB, the applicant, and all other interested parties of the uncontested (and severable) conditions of the final permit that will become fully effective enforceable obligations of the permit as of the date specified in paragraph (a)(2)(i) of this section. For NPDES permits only, the notice shall comply with the requirements of Sec. 124.60(b).
- (b) Stays based on cross effects. (1) A stay may be

- granted based on the grounds that an appeal to the Administrator under Sec. 124.19 of one permit may result in changes to another EPA-issued permit only when each of the permits involved has been appealed to the Administrator and he or she has accepted each appeal.
- (2) No stay of an EPA-issued RCRA, UIC, or NPDES permit shall be granted based on the staying of any State-issued permit except at the discretion of the Regional Administrator and only upon written request from the State Director.
- (c) Any facility or activity holding an existing permit must:
- (1) Comply with the conditions of that permit during any modification or revocation and reissuance proceeding under Sec. 124.5; and
- (2) To the extent conditions of any new permit are stayed under this section, comply with the conditions of the existing permit which correspond to the stayed conditions, unless compliance with the existing conditions would be technologically incompatible with compliance with other conditions of the new permit which have not been stayed. [48 FR 14264, Apr. 1, 1983, as amended at 65 FR 30911, May 15, 2000]

Sec. 124.19 Appeal of RCRA, UIC, NPDES, and PSD Permits.

(a) Within 30 days after a RCRA, UIC, NPDES, or PSD final permit decision (or a decision under 270.29 of this chapter to deny a permit for the active life of a RCRA hazardous waste management facility or unit) has been issued under Sec. 124.15 of this part, any person who filed comments on that draft permit or participated in the public hearing may petition the Environmental Appeals Board to review any

condition of the permit decision. Persons affected by an NPDES general permit may not file a petition under this section or otherwise challenge the conditions of the general permit in further Agency proceedings. They may, instead, either challenge the general permit in court, or apply for an individual NPDES permit under Sec. 122.21 as authorized in Sec. 122.28 and then petition the Board for review as provided by this section. As provided in Sec. 122.28(b)(3), any interested person may also petition the Director to require an individual NPDES permit [[Page 272]] for any discharger eligible for authorization to discharge under an NPDES general permit. Any person who failed to file comments or failed to participate in the public hearing on the draft permit may petition for administrative review only to the extent of the changes from the draft to the final permit decision. The 30-day period within which a person may request review under this section begins with the service of notice of the Regional . Administrator's action unless a later date is specified in that notice. The petition shall include a statement of the reasons supporting that review, including a demonstration that any issues being raised were raised during the public comment period (including any public hearing) to the extent required by these regulations and when appropriate, a showing that the condition in question is based on:

- (1) A finding of fact or conclusion of law which is clearly erroneous, or
- (2) An exercise of discretion or an important policy consideration which the Environmental Appeals Board should, in its discretion, review.
- (b) The Environmental Appeals Board may also decide on its own initiative to review any condition of any RCRA, UIC, NPDES, or PSD permit decision issued under this part for which review is available under paragraph (a) of this section. The Environmental Appeals Board must act under this paragraph within 30 days of the service date of notice of the Regional Administrator's action.
- (c) Within a reasonable time following the filing of the petition for review, the Environmental Appeals Board shall issue an order granting or denying the petition for review. To the extent review is denied, the conditions of the final permit decision become final agency action. Public notice of any grant of review by the Environmental Appeals Board under paragraph (a) or (b) of this section shall be given as provided in Sec. 124.10. Public notice shall set forth a briefing schedule for the appeal and shall state that any interested person may file an amicus brief. Notice

of denial of review shall be sent only to the person(s) requesting review.

- (d) The Regional Administrator, at any time prior to the rendering of a decision under paragraph (c) of this section to grant or deny review of a permit decision, may, upon notification to the Board and any interested parties, withdraw the permit and prepare a new draft permit under Sec. 124.6 addressing the portions so withdrawn. The new draft permit shall proceed through the same process of public comment and opportunity for a public hearing as would apply to any other draft permit subject to this part. Any portions of the permit which are not withdrawn and which are not stayed under Sec. 124.16(a) continue to apply.
- (e) A petition to the Environmental Appeals Board under paragraph (a) of this section is, under 5 U.S.C. 704, a prerequisite to the seeking of judicial review of the final agency action.
- (f)(1) For purposes of judicial review under the appropriate Act, final agency action occurs when a final RCRA, UIC, NPDES, or PSD permit decision is issued by EPA and agency review procedures under this section are exhausted. A final permit decision shall be issued by the Regional Administrator: (i) When the Environmental Appeals Board issues notice to the parties that review has been denied; (ii) When the Environmental Appeals Board issues a decision on the merits of the appeal and the decision does not include a remand of the proceedings; or (iii) Upon the completion of remand proceedings if the proceedings are remanded, unless the Environmental Appeals Board's remand order specifically provides that appeal of the remand decision will be required to exhaust administrative remedies.
- (2) Notice of any final agency action regarding a PSD permit shall promptly be published in the Federal Register.
- (g) Motions to reconsider a final order shall be filed within ten (10) days after service of the final order. Every such motion must set forth the matters claimed to have been erroneously decided and the nature of the alleged errors. Motions for reconsideration under this provision shall be directed to, and decided by, the Environmental Appeals Board. Motions for reconsideration directed to the administrator, [[Page 273]] rather than to the Environmental Appeals Board, will not be considered, except in cases that the Environmental Appeals Board has referred to the Administrator pursuant to Sec. 124.2 and in which the Administrator has issued the final order. A motion for reconsideration shall not stay the effective date of the

final order unless specifically so ordered by the Environmental Appeals Board. [48 FR 14264, Apr. 1, 1983, as amended at 54 FR 9607, Mar. 7, 1989; 57 FR 5335, Feb. 13, 1992; 65 FR 30911, May 15, 2000]

Sec. 124.20 Computation of time.

- (a) Any time period scheduled to begin on the occurrence of an act or event shall begin on the day after the act or event.
- (b) Any time period scheduled to begin before the occurrence of an act or event shall be computed so that the period ends on the day before the act or event.
- (c) If the final day of any time period falls on a weekend or legal holiday, the time period shall be extended to the next working day.
- (d) Whenever a party or interested person has the right or is required to act within a prescribed period after the service of notice or other paper upon him or her by mail, 3 days shall be added to the prescribed time.

SUBPART D--SPECIFIC PROCEDURES APPLICABLE TO NPDES PERMITS

Sec. 124.60 Issuance and effective date and stays of NPDES permits.

In addition to the requirements of Secs. 124.15, 124.16, and 124.19, the following provisions apply to NPDES permits:

(a) Notwithstanding the provisions of Sec. 124.16(a)(1), if, for any offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig which has never received a final effective permit to discharge at a [[Page 281]] "site," but which is not a "new discharger" or a "new source," the Regional Administrator finds that compliance with certain permit conditions may be necessary to avoid irreparable environmental harm during the administrative review, he or she may specify in the statement of basis or fact sheet that those conditions, even if contested, shall remain enforceable obligations of the discharger during administrative review.

(b)(1) As provided in Sec. 124.16(a), if an appeal of an initial permit decision is filed under Sec. 124.19, the force and effect of the contested conditions of the final permit shall be stayed until final agency action under Sec. 124.19(f). The Regional Administrator shall notify, in accordance with Sec. 124.16(a)(2)(ii),

the discharger and all interested parties of the uncontested conditions of the final permit that are enforceable obligations of the discharger.

- (2) When effluent limitations are contested, but the underlying control technology is not, the notice shall identify the installation of the technology in accordance with the permit compliance schedules (if uncontested) as an uncontested, enforceable obligation of the permit.
- (3) When a combination of technologies is contested, but a portion of the combination is not contested, that portion shall be identified as uncontested if compatible with the combination of technologies proposed by the requester.
- (4) Uncontested conditions, if inseverable from a contested condition, shall be considered contested.
- (5) Uncontested conditions shall become enforceable 30 days after the date of notice under paragraph (b)(1) of this section.
- (6) Uncontested conditions shall include: (i) Preliminary design and engineering studies or other requirements necessary to achieve the final permit conditions which do not entail substantial expenditures; (ii) Permit conditions which will have to be met regardless of the outcome of the appeal under Sec. 124.19; (iii) When the discharger proposed a less stringent level of treatment than that contained in the final permit, any permit conditions appropriate to meet the levels proposed by the discharger, if the measures required to attain that less stringent level of treatment are consistent with the measures required to attain the limits proposed by any other party; and (iv) Construction activities, such as segregation of waste streams or installation of equipment, which would partially meet the final permit conditions and could also be used to achieve the discharger's proposed alternative conditions.
- (c) In addition to the requirements of Sec. 124.16(c)(2), when an appeal is filed under Sec. 124.19 on an application for a renewal of an existing permit and upon written request from the applicant, the Regional Administrator may delete requirements from the existing permit which unnecessarily duplicate uncontested provisions of the new permit. [65 FR 30912, May 15, 2000]

Information for Filing an Adjudicatory Hearing Request with the Commonwealth of Massachusetts Department of Environmental Protection

Within thirty days of the receipt of this letter the adjudicatory hearing request should be sent to:

Docket Clerk
Office of Administrative Appeals
Department of Environmental Protection
One Winter Street, Second Floor
Boston, MA 02108

In addition, a valid check payable to the Commonwealth of Massachusetts in the amount of \$100 must be mailed to:

Commonwealth of Massachusetts Department of Environmental Protection P.O. Box 4062 Boston, MA 02211

The hearing request to the Commonwealth will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver.

The filing fee is not required if the appellant is a city, town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory hearing filing fee for a permittee who shows that paying the fee will create an undue financial hardship. A permittee seeking a waiver must file, along with the hearing request, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

April 17, 2002

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