

**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),

**Town of Amesbury**

is authorized to discharge from a facility located at

**Amesbury Water Pollution Abatement Facility  
19 Merrimac Street  
Amesbury, Massachusetts 01913**

to receiving waters named **Merrimack River**

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

This permit shall become effective sixty days from the date of signature.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This Permit supersedes the permit issued on January 29, 1998.

This permit consists of 12 pages in Part I including effluent limitations, monitoring requirements, **Attachments A through C**, and 35 pages in Part II including General Conditions and Definitions.

Signed this 6<sup>th</sup> day of February, 2004

SIGNATURE ON FILE

Linda M. Murphy, Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

Director, Division of Watershed Management  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

**PART I**

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge treated sanitary and industrial wastewater from outfall serial number 001. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			<u>Monitoring Requirements</u>	
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type<sup>3</sup></u>
Flow, MGD	1.9 <sup>2</sup>	-----	Report	Continuous	Recorder
BOD <sub>5</sub> , mg/l	30	45	-----	1/Week <sup>4</sup>	24-hr composite <sup>5</sup>
lbs/day	475	713	-----		
TSS, mg/l	30	45	-----	1/Week <sup>4</sup>	24-hr composite <sup>5</sup>
lbs/day	475	713	-----		
pH, S.U.	See I.A.1.b.			Daily	Grab
Fecal Coliform <sup>1,6</sup> , cfu/100 ml	200	400	400	1/Week	Grab
Total Residual Chlorine <sup>7</sup> , mg/l	Report	----	1.0	3/Day	Grab
LC <sub>50</sub> <sup>8,9,10</sup>	----	----	≥ 50%	2/Year	24-hr composite <sup>5</sup>

Effluent samples shall be taken after the secondary clarifier and before the chlorine contact chamber for all parameters except TRC. Footnotes are listed on Page 3

Footnotes:

1. Required for state certification.
2. For flow, report maximum and minimum daily rates and total flow for each operating date. This is an annual average limit, which shall be reported as a rolling average. The first value will be calculated using the monthly average flow for the first full month ending after the effective date of the permit and the eleven previous monthly average flows. Each subsequent month's DMR will report the annual average flow that is calculated from that month and the previous 11 months.
3. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. All samples shall be 24 hour composites unless specified as a grab sample in 40 CFR §136.
4. Sampling required for influent and effluent.
5. A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during one continuous 24-hour period (e.g. 0700 Monday- 0700 Tuesday).
6. Fecal coliform and total residual chlorine monitoring and limits are effective year-round. This is also a state certification requirement. 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 concurrently with the TRC sampling described below.
7. 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.
8. The permittee shall conduct acute toxicity tests two times per year. The permittee shall test the Mysid shrimp, Mysidopsis bahia, and the Inland silverside, Menidia beryllina. Toxicity samples shall be collected during the second week July and October. The test results shall be submitted by the last day of the month following the completion of the test. The results are due August 31<sup>st</sup> and November 30<sup>th</sup> 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 <sub>50</sub>	Chronic Limit C-NOEC
July October	August 31 <sup>st</sup> November 30 <sup>th</sup>	Mysid shrimp ( <u>Mysidopsis bahia</u> ) Inland silverside <u>Menidia beryllina</u> <b>See Attachment A</b>	≥ 50%	-----

After submitting **one year** and a **minimum** of two consecutive sets of WET test results, all of which demonstrate compliance with the WET permit limits, the permittee may request a reduction in the WET testing requirements. The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from the EPA that the WET testing requirement has been changed.

9. The LC<sub>50</sub> is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 50% limit means that a sample of 50% effluent (with 50% dilution water) shall cause no more than a 50% mortality rate.
  
10. 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**.

**Part I.A.1.**

- 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 8.5 at any time, unless these values are exceeded due to natural causes or as a result of the approved treatment

processes.

- c. The effluent shall not contain neither a visible oil sheen, foam, nor floating solids at any time.
- d. The discharge shall not cause visible discoloration of the receiving waters.
- e. 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.
- f. Samples taken in compliance with the monitoring requirements specified in the permit shall be taken at a representative point prior to the mixing with other streams.

**Part I.A.2.** All POTWs must provide adequate notice to the Director of the following:

- a. Any new introduction of pollutants into the 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 the 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.

**Part I.A.3.** Prohibitions Concerning Interference and Pass-Through:

- 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 treatment works.
- b. Where specific prohibitions or limits on pollutants or pollutant parameters are developed by a POTW in accordance with Sections B and C below such limits shall be deemed Pretreatment Standards for the purposes of Section 307(d) of the Clean Water Act (CWA).

**Part I.A.4. Toxics Control**

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.

**Part I.A.5. 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. LIMITATIONS FOR INDUSTRIAL USERS.**

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 (180 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 the attached form (**Attachment C**) with the technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and conclusions should be based on actual plant data if available and should be included in the report. Should the evaluation reveal the need to revise local limits, the permittee shall complete the revisions within 120 days of notification by EPA and submit the revisions to EPA for approval. The Permittee shall carry out the local limits revisions in accordance with EPA Guidance Manual for the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program (December, 1987).

**C. INDUSTRIAL PRETREATMENT PROGRAM.**

1. 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"):

- a. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users shall be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.
  - b. Issue or renew all necessary industrial user control mechanisms within 120 days of their expiration date or within 180 days after the industry has been determined to be a significant industrial user.
  - c. Obtain appropriate remedies for noncompliance by any industrial user with any pretreatment standard and/or requirement; and
  - d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.
2. The permittee shall provide the EPA and the MA DEP with an annual report, in **Attachment B** in accordance with 403.12(i), describing the permittee's pretreatment program activities over the twelve month period ending 60 days prior to the due date. The annual report shall be consistent with the format described in **Attachment B** of this permit and shall be due on **November 1st** of each year.
  3. 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).
  4. 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.
  5. The permittee must modify, if necessary, 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** of any 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 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.

**D. 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 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. Infiltration/Inflow Control Plan:

The 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 MA DEP within six months of the effective date of this permit** (see page 1 of this permit for the effective date) and shall describe the permittee's program for preventing infiltration/inflow related effluent limit violations, and all unauthorized discharges of wastewater, including overflows and by-passes due to excessive infiltration/inflow.

The plan shall include:

- An ongoing program to identify and remove sources of infiltration and inflow. 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 infiltration and inflow 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 MA DEP annually**, by the anniversary date of the effective date of this permit. 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 infiltration/inflow 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 infiltration/inflow related corrective actions taken as a result of unauthorized discharges reported pursuant to 314 CMR 3.19(20) and reported pursuant to the Unauthorized Discharges section of this permit.

### 3. Alternate Power Source:

In order to maintain compliance with the terms and conditions of this permit, the permittee shall continue to provide an alternative power source with which to sufficiently operate its treatment works **(as defined at 40 CFR §122.2)**.

## E. 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 (lagoons- reed beds), or  
  
are otherwise excluded under 40 CFR 503.6.
5. The permittee shall use and comply with the attached compliance guidance document to

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:

less than 290	1/ year
290 to less than 1500	1 /quarter
1500 to less than 15000	6 /year
15000 +	1 /month

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

**F. MONITORING AND REPORTING**

1. Reporting

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(s) **postmarked no later than the 15th day of the month following the effective date of the permit.**

Original, signed DMRs and all other reports required herein, shall be submitted to the Director and the State at the following two addresses:

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

The State Agency is:

Massachusetts Department of Environmental Protection  
Northeast Regional Office-Bureau of Resource Protection  
1 Winter Street  
Boston, MA 02108

Signed copies of all toxicity test reports only required by this permit shall be submitted to the State at:

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

For any non compliance requiring twenty four hour reporting pursuant to Part II, Section D.1.e of this permit, the permittee shall notify EPA and the DEP Northeast Regional Office noted above, and the Division of Marine Fisheries, Shellfish Management Program, 30 Emerson Avenue, Gloucester, MA 01930 at telephone number: (978) 282-0308. The permittee shall also provide the Division of Marine Fisheries notice within twenty four hours of exceeding fecal coliform effluent limitations.

**G. STATE PERMIT CONDITIONS**

This discharge permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under federal and state law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap. 21, §43.

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.