

**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 Adams
Board of Selectmen**

is authorized to discharge from the facility located at

**Adams Wastewater Treatment Plant
273 Columbia Street
Adams, Massachusetts 01220**

to the receiving water named

**Hoosic River
(Hudson Watershed)**

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

This permit shall become effective 60 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 September 29, 2000.

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

Signed this 13th day of July, 2005

/s/ 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 1 PERMIT LIMITS

During the period beginning with the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial nu
001, treated effluent to the Hoosic River. Such discharges shall be limited and monitored as specified below.

<u>EFFLUENT CHARACTERISTIC</u>		<u>EFFLUENT LIMITS</u>		<u>MONITORING REQUIREMENTS</u>		
<u>PARAMETER</u>	<u>UNITS</u>	<u>AVERAGE MONTHLY</u>	<u>AVERAGE WEEKLY</u>	<u>MAXIMUM DAILY</u>	<u>MEASUREMENT FREQUENCY</u>	<u>SAMPLE TYPE³</u>
FLOW ^{1,5} (November 1 - May 31) (June 1 - October 31)	mgd mgd	4.6 3.5	***** *****	Report Report	Continuous Continuous	Recorder Recorder
BOD ₅ (November 1 - May 31)	mg/l lbs/day	30 1151	45 1726	Report	1/Week ²	24-Hour Composite ⁴
BOD ₅ (June 1 - October 31)	mg/l lbs/day	30 876	45 1314	Report	1/Week ²	24-Hour Composite ⁴
TSS (November 1 - May 31)	mg/l lbs/day	30 1151	45 1726	Report	1/Week ²	24-Hour Composite ⁴
TSS (June 1 - October 31)	mg/l lbs/day	30 876	45 1314	Report	1/Week ²	24-Hour Composite ⁴
Dissolved Oxygen (April 1 - October 31)	mg/l	≥ 6.0	*****	*****	1/Day	Grab
pH Range ⁵	standard units		6.5 - 8.3		1/Day	Grab
Fecal Coliform ^{5,6}	cfu/100 ml	200	*****	400	1/Week	Grab
Total Residual Chlorine ^{7,8} (April 1 - October 31)	ug/l	46	*****	79	2/Day	Grab

<u>EFFLUENT CHARACTERISTIC</u>		<u>EFFLUENT LIMITS</u>			<u>MONITORING REQUIREMENTS</u>	
PARAMETER	UNITS	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE TYPE ³
Ammonia Nitrogen as N (June 1 - October 31)	mg/l lbs/day	2.6 76	5.1 149	***** *****	1/Week	24-Hour Composite ⁴
Ammonia Nitrogen as N (November 1 - May 31)	mg/l lbs/day	Report Report	***** *****	Report Report	1/Month	24-Hour Composite ⁴
Copper, Total ⁹	ug/l	46	*****	69	1/Month	24-Hour Composite ⁴
Total Phosphorus (May 1 - October 31)	mg/l	1.0	*****	*****	3/Week	24-Hour Composite ⁴
(November 1 - April 30)	mg/l	Report	*****	Report	1/Month	
Aluminum, Total ¹⁰	ug/l	364	*****	*****	2/Month	24-Hour Composite ⁴
WHOLE EFFLUENT TOXICITY ^{11,12,13}	% %	Acute LC ₅₀ Chronic NOEC		>100% ≥24%	4/Year 4/Year	24-Hour Composite ⁴

Footnotes:

1. The flow limits of 4.6 mgd and 3.5 mgd are to be reported as a monthly average each month. Also report maximum and minimum daily rates and total flow for each operating date.
2. Sampling required for influent and effluent.

3. All sampling shall be representative of the influent and the effluent that is discharged through outfall 001 to the Hoosic River. A routine sampling program shall be developed in which samples are taken at the same location, same time and same days of every month. Any deviations from the routine sampling program shall be documented in correspondence appended to the applicable discharge monitoring report that is submitted to EPA. In addition, all samples shall be analyzed using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136.
4. A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during a consecutive 24-hour period (e.g. 7:00 am Monday to 7:00 am Tuesday).
5. Required for State certification.
6. Fecal coliform monitoring will be only conducted from April 1st through October 31st to reflect the seasonal disinfection period. 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.
7. The minimum level (ML) for Total Residual Chlorine (TRC) is defined as 20 ug/l 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 Methods for Chemical Analysis of Water and Wastes, Method 330.5. One of these methods must be used to determine TRC. The ML is not the minimum level of detection, but rather the lowest point on the curve used to calibrate the test equipment for the pollutant of concern. If EPA approves a more sensitive method of analysis for TRC, the permit may be reopened to require the use of the new method with a corresponding lower ML. When reporting sample data at or below the ML, see the latest EPA Region NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs) for guidance.
8. 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

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estimated amount of time that the reduced levels of chlorine or dechlorination chemicals occurred.

9. The minimum detection level (ML) for copper is defined as 5.0 ug/l. This value is the minimum detection level for copper using the Furnace Atomic Absorption analytical method. For effluent limitations less than 5.0 ug/l, compliance/non-compliance will be determined based on the ML. Sample results of 5 ug/l or less shall be reported as zero on the discharge Monitoring Report.

10. Sampling for an aluminum permit requirement shall occur on the same day as a sampling event for the phosphorus permit requirement.

11. The permittee shall conduct toxicity tests four times per year. The permittee shall test the daphnid, Ceriodaphnia dubia, 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 March 31st, June 30th, September 30th, and December 31st, respectively. This schedule is summarized in the following table. The tests must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit.

Whole Effluent Toxicity Test Schedule

Test Dates Second Week in	Submit Results by:	Test Species	Acute Limit LC ₅₀	Chronic Limit NOEC
February May August November	March 31 June 30 September 30 December 31	<u>Ceriodaphnia dubia</u> (daphnid)	>100%	>24%

12. 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 shall cause no more than a 50% mortality rate. 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 "24% or greater" limit is defined as a sample which is composed of 24% (or greater) effluent, the remainder being dilution water. This is a maximum daily limit derived as a percentage of the inverse of the dilution factor of 4.18.

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13. The permittee shall use the receiving water as the diluent when performing the toxicity tests. 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**, the permittee may obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water, by following the procedure outlined in the "NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs) Report Year 2004" (Attachment G, Common Pitfalls and Guidance, 14. **Dilution Water**). If this Guidance is revoked, the permittee shall revert to obtaining approval as outlined in **Attachment A**. The Instructions along with the annual set of DMRs are sent to all permittees separately and are 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 1.A.1. (Continued)

- a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
- b. The discharge shall not cause objectionable discoloration of the receiving waters.
- c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
- d. 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.
- e. Sample results using EPA approved methods for any parameter above its required frequency must also be reported.

PART 1. B.

1. The POTW must provide notice to the Director as soon as possible 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

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that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

c. For purposes of this paragraph, notice shall include information on:

- (i) the quantity and quality of effluent introduced into the POTW; and
- (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

2. 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.

3. Numerical Effluent Limitations for Toxicants

- a. 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.

PART 1. C. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfall listed in Part 1.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).

PART 1. 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:

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1. Maintenance Staff

a. 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. Preventative Maintenance Program

a. The 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:

a. 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:

i) 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.

ii) 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.

iii) Identification and prioritization of areas that will provide increased aquifer recharge as the result of reduction/elimination of infiltration and inflow to the system.

iv) An educational public outreach program for all aspects of I/I control, particularly private inflow.

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

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- i) A map and a description of inspection and maintenance activities conducted and corrective actions taken during the previous year.
- ii) Expenditures for any infiltration/inflow related maintenance activities and corrective actions taken during the previous year.
- iii) A map with areas identified for I/I-related investigation/action in the coming year.
- iv) A calculation of the annual average I/I, the maximum month I/I for the reporting year.
- v) 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.

4. Alternative Power Source

- a. 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).

PART 1. E. PRETREATMENT

1. 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.

2. 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

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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 all 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. The permittee shall provide the EPA (and the MA DEP) with an annual report describing the permittee's pretreatment program activities for the twelve month period ending 60 days prior to the due date in accordance with 403.12(i). The annual report shall be consistent with the format described in **Attachment B** of this permit and shall be submitted no later than (March 1) 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 90 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 the sewer use ordinance to reflect EPA's comments of July 12, 1999. 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.

PART 1. F. SLUDGE CONDITIONS

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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 use and comply with the attached compliance guidance document to determine appropriate conditions. Appropriate conditions contain the following elements:
 - a) General requirements
 - b) Pollutant limitations
 - c) Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
 - d) Management practices
 - e) Record keeping
 - f) Monitoring
 - g) 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:

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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.

PART 1. G. MONITORING AND REPORTING

1. Reporting

a. 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.**

b. 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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection
Western Regional Office
436 Dwight Street
Springfield, MA 01103

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c. 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

d. Pretreatment reports required in Part 1 E. of this permit should be submitted to:

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

PART 1. H. 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 (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.

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.