

NPDES Permit No. MA0101613

Page 1 of 11

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),

**Springfield Water and Sewer Commission
Springfield, Massachusetts**

is authorized to discharge from the facility located at

**Springfield Regional Waste Water Treatment Facility
Route 5 Bondi Island, Agawam, MA 01001**

to receiving water named **Connecticut River**

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

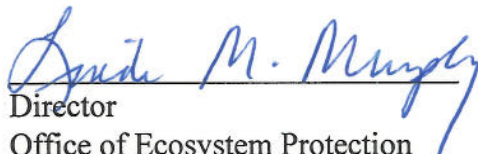
This permit shall become effective sixty days from the date of signature.


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

This permit supersedes the permit issued on September 29, 1995 to the City of Springfield Department of Public Works and Transferred to the Springfield Water and Sewer Commission on April 14, 1997.

This permit consists of 11 pages in Part I including effluent limitations, monitoring requirements; 35 pages in Part II including General Conditions Definitions; Toxicity Testing Protocol, Attachment A and Industrial Pretreatment Annual Report, Attachment B.

Signed this ^{8th} day of December, 2000


Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA


Acting Assistant Commissioner
Bureau of Resource Protection
Department Environmental Protection
Commonwealth of Massachusetts
Boston, MA

NPDES Permit No. MA0101613

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 001*. Such discharge shall be limited and monitored by the permittee as specified below.

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement
		Average Monthly	Average Weekly	Maximum Daily	
Flow	MGD	67 ¹	----	Report	Continuous ² Recorder
BOD ₅	mg/l lbs/day	30 16763	45 25145	Report Report	1/Day ³ 24-Hour Composite ⁴
TSS	mg/l lbs/day	30 16763	45 25145	Report Report	1/Day ³ 24-Hour Composite ⁴
Fecal Coliform Bacteria ⁵ (April 1 - October 31)	CFUs/ 100ml	200	----	400	5/Week Grab
Total Residual Chlorine (April 1 - October 31)	mg/l	0.22	0.38	Report	5/Week Grab
pH		(See Condition I.A.1.b. on Page 4)			1/Day Grab
Total Ammonia Nitrogen, [NH ₃]r	mg/l	----	----	Report	1/Month 24-Hour Composite ⁴

*Formerly Outfall No. 041.
See explanation on Page 3.

NPDES Permit No. MA0101613

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement
		Average Monthly	Average Weekly	Maximum Daily	
Nitrite+Nitrate	mg/l	Report	----	----	1/month 24-Hour Composite ⁴
TKN	mg/l	Report	----	----	1/month 24-Hour Composite ⁴
LC ₅₀ ⁶	%	----	----	100	4/year ⁷ Composite

Change of Outfall Serial Number

The previous permit designated the wastewater treatment plant outfall as outfall serial number 041. This permit designates this outfall as serial number 001, for clarity, since it is the only discharge authorized by this permit.

Footnotes:

1. This limit is **annual average**. The permittee shall report the annual average flow each month. The annual average, shall be calculated using the **monthly average** flow from the reporting month plus the monthly average flow from the previous 11 months.
2. Report maximum and minimum daily rates and total flow for each operating day.
3. Sampling required for influent and effluent.
4. A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during one working day (e.g 6:00 AM -5:59AM, Monday - Tuesday).
5. This is a State certification requirement. The monthly average limit is expressed as a geometric mean.
6. The LC₅₀ is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means

- 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:

All POTWs must provide adequate notice to the Director of the following:

Part I.A.2.

- 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, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.
- c. The discharge shall not cause objectionable discoloration, odor, or turbidity of the receiving waters.
- d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
- e. When the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the design flow, the permittee shall submit to the permitting authorities a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.
- g. The permittee shall minimize the use of chlorine while maintaining adequate bacterial control.

Part I.A.1. (Continued)

- 7. The permittee shall conduct acute toxicity tests four times per year. The permittee shall test the daphnid, **Ceriodaphnia dubia**, only. Toxicity test samples shall be collected on the second week of March, June, September and December. Results are to be submitted by the 15th day of the second month after the sample i.e. May, August, November, and February. See Permit's Attachment A, Toxicity Test Procedure and Protocol.
- that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.

This permit only authorizes the discharge from the outfall listed in Part I A.1. of this permit, subject to the terms and conditions in the permit. Discharges from CSOs are authorized by NPDES permit No. MA0103331. Discharges of wastewater from any other point sources are not authorized unless in accordance with General Requirement Part II, B.4 (b)[Bypasses] of this permit.

B. UNAUTHORIZED DISCHARGES

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.

A.5. Numerical Effluent Limitations for Toxicants

- 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 promulgated. Upon promulgation of new standards, this permit may be revised or amended in accordance with such standards.

A.4. Toxics Control

- 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. If, within 30 days after notice of an interference or pass through violation has been sent by EPA to the POTW, and to persons or groups who have requested such notice, the POTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action.

A.3. Prohibitions Concerning Interference and Pass Through:

- (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.

By July 31, 2001, the permittee will submit a report documenting the effectiveness of the chlorination and dechlorination systems. The report will specifically address how flow variability and chlorine demand variability affect compliance with the TRC and fecal coliform limits at all times. Sampling data shall be provided to support conclusions on how hourly and daily flow and chlorine demand variability affects permit compliance. The report will include a description of the chlorination and dechlorination systems and the methods for dosage control. The report will identify all changes necessary to ensure compliance with the TRC and fecal coliform limits at all times, including equipment modifications and upgrades, operational procedures (including calibration procedures

4. Chlorination System Report

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

3. Alternate Power Source

Since the SWSC does not control the collection systems in seven of those communities, the permittee shall initiate agreements and/or build upon existing agreements with these communities to assure that the permit conditions are met. The permittee is responsible for collecting all the pertinent information from the communities and reporting it as required in this permit. Relevant I/I studies or work done previously in conjunction with any or all the communities may be used as part of this requirement.

The permittee shall eliminate excessive infiltration/inflow to the sewer system. A summary report of all actions taken to minimize infiltration/inflow during the previous calendar year shall be submitted to EPA and the MA DEP by February 28th of each year. This report shall also include a graph of flows to the treatment plant during the year and an analysis of I/I trends (i.e. is I/I being reduced?). If there have been any unauthorized discharges from the collection system during the previous calendar year which were caused by inadequate sewer system capacity, the permittee shall also include in this report an evaluation of actions necessary to restore adequate capacity.

2. Infiltration/Inflow

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.

1. Maintenance Staff

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

C. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

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.
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.
- 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 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.

F. INDUSTRIAL PRETREATMENT PROGRAM

a. 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. 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).

The permittee submitted a local limit report to EPA. EPA is in the process of finalizing comments to the report. Should the report need revisions, the permittee shall complete the revisions within 120 days of notification by EPA and submit the revisions to EPA for approval.

D. 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. 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).

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 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 31st 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.

F. COMBINED SEWER OVERFLOW DISCHARGES

1. Effluent Limitations:

- a. This permit does not authorize discharges from combined sewer overflows. The authorization to discharge through the permittee's CSOs are contained in NPDES Permit No. MA0103331, which authorizes the discharge from CSOs during wet weather subject to technology-based limits and water quality requirements.

2. Nine Minimum Controls

The permittee shall continue to implement its Nine Minimum Control Program (NMC) as documented on April 1997. The permittee may modify its NMC program to enhance its effectiveness. If at any time in the future, this permit is transferred to another permittee, the new permittee shall implement, at a minimum, all of the nine minimum controls pertaining to the operation and maintenance of the treatment plant plus any it has agreed to perform as a condition of the transfer.

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 (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 frequency indicated below. 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. Reports are due annually by **February 19**. Reports shall be submitted to the address contained in the reporting section of the permit.

Agency.
and effect under federal law as an NPDES Permit issued by the U.S. Environmental Protection
invalid, illegal or otherwise issued in violation of state law such permit shall remain in full force
modification, suspension or revocation. In the event any portion of this permit is declared,
by the other agency, unless and until each agency has concurred in writing with such
the agency taking such action, and shall not affect the validity or status of this permit as issued
Any modification, suspension or revocation of this permit shall be effective only with respect to
Each agency shall have the independent right to enforce the terms and conditions of this permit.

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

I. STATE PERMIT CONDITIONS

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

3. Copies of all Discharge Monitoring Reports **and toxicity** test reports required by this permit shall be submitted to MADEP the following address:

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

2. One copy of the Discharge Monitoring Reports and all other reports required herein, except for **toxicity** test reports, shall be submitted to MADEP at the following address:

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

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:

1. 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.

H. MONITORING AND REPORTING

NPDES Permit No. MA0101613
Page 11 of 11

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.