

**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 Russell, Board of Selectmen**

is authorized to discharge from the facility located at

**Russell Village Wastewater Treatment Plant**  
200 Main Street,  
Russell, Massachusetts 01071

to receiving water named Westfield River

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

This permit shall become effective sixty (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, 1998.

This permit consists of 8 pages in Part I including effluent limitations and monitoring requirements, Attachment A (Whole Effluent Toxicity Test Protocol), Attachment B (Sludge Guidance) and 35 pages in Part II including General Conditions and Definitions.

Signed this 9<sup>th</sup> day of September, 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 I**

<p><b>A.1.</b> During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial number <b>001</b>, treated effluent to the Westfield River. Such discharges shall be limited and monitored as specified below.</p>						
<u>EFFLUENT CHARACTERISTIC</u>		<u>EFFLUENT LIMITS</u>			<u>MONITORING REQUIREMENTS</u>	
PARAMETER	AVERAGE MONTHLY	AVERAGE WEEKLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE TYPE	
FLOW <sup>2</sup>	0.24 MGD	*****	Report	Continuous	Meter	
BOD <sub>5</sub> <sup>3</sup>	30 mg/l	45 mg/l	Report	1/Week	24-Hour Composite <sup>5</sup>	
	60 lbs/day	90 lbs/day				
TSS <sup>3</sup>	30 mg/l	45 mg/l	Report	1/Week	24-Hour Composite <sup>5</sup>	
	60 lbs/day	90 lbs/day				
pH RANGE <sup>1</sup>	6.5 - 8.3 su. See Part I.A.1.b. on page 4 of 8			Daily	Grab	
FECAL COLIFORM <sup>1,6</sup> CFUs/100 ml	200/100 ml	*****	400/100 ml	1/Week	Grab	
WHOLE EFFLUENT TOXICITY <sup>7, 8, and 9</sup>	*****	*****	LC <sub>50</sub> ≥ 100%	1/Year	24-Hour Composite <sup>5</sup>	

Sampling shall be conducted at a representative point following treatment and prior to discharge.

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. Sample influent and effluent.
4. All sampling shall be representative of the effluent that is discharged through outfall 001 to the Westfield 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.
5. A 24-hour composite sample will consist of at least twenty four (24) grab sampling over a consecutive 24-hour period.
6. Fecal coliform monitoring is 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. The fecal coliform limits are in effect from April 1 to October 31 each year.
7. The permittee shall conduct one acute toxicity test per year in accordance with the schedule indicated below. The tests must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit.

Test Date Second Week in	Submit Results By:	Test Species	Acute Limit LC <sub>50</sub>	Chronic Limit C-NOEC
August	September 30 <sup>th</sup>	<u>Ceriodaphnia dubia</u>  See Attachment A	≥ 100%	None Required

8. The LC<sub>50</sub> 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.
9. If toxicity test using receiving water as diluent show the receiving water to be toxic or unreliable,

the permittee shall follow procedures outlined in the **Attachment A, Toxicity Testing Procedures and Protocol, 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 alternative 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. (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 standard units at any time, unless these values are exceeded as a result of an approved treatment process.
  - c. The discharge shall not cause objectionable discoloration of the receiving waters.
  - d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
  - 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. The permittee shall control infiltration and inflow (I/I) to the separate sewer system to prevent infiltration/inflow related effluent limit violations and any unauthorized discharges of wastewater, including overflows and by-passes, due to excessive infiltration/inflow [see Section C of this permit].
2. The permittee must provide adequate notice to the Director of the following:
- a. Any new introduction of pollutants into the treatment system 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 treatment system by a source introducing pollutants into the treatment system 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 treatment system, and

(2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment system.

### 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.

## **B. 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 I.A.1. of this permit.

## **C. 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 available to EPA upon request and submitted to MA DEP within twelve months (12) 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.

#### D. 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 does not apply to facilities which place sludge within a municipal solid waste landfill for treatment. These conditions do not apply also, 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:

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 regulations 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. In such cases, 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

**E. MONITORING AND REPORTING**

## 1. Reporting

Monitoring results obtained during each month shall be summarized and reported on separate Discharge Monitoring Report Forms(s) **postmarked no later than the 15<sup>th</sup> day of the month** following the completed reporting period.

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

A copy of the Discharge Monitoring Reports and all other reports required herein, shall be submitted to MADEP at the following address:

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

Signed and dated Discharge Monitoring Report Forms 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

**F. 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.