

**Table 2: Daily Maximum and Maximum Daily Limit Derivation**

<b>Daily Maximum Limit Derivation</b>	
$u_y = \text{Avg of Nat. Log of daily Discharge (lbs/day)} =$	2.31135
$\sigma_y = \text{Std Dev. of Nat Log of daily discharge} =$	0.35266
$\Sigma (y_i - u_y)^2 =$	10.32278
$k = \text{number of daily samples} =$	85
$\sigma_y^2 = \text{estimated variance} = (\Sigma[(y_i - u_y)^2]) / (k-1) =$	0.12289
<b>Daily Max Limit = exp (<math>u_y + 2.326 * \sigma_y</math>)</b>	
<b>Daily Max Limit =</b>	<b>22.91 ug/L</b>
(Lognormal distribution, 99th percentile)	
<b>Average Monthly Limit Derivation</b>	
Number of samples per month, $n =$	1
$E(x) = \text{Daily Avg} = \exp(u_y + 0.5 \sigma_y^2) =$	10.72739
$V(x) = \text{Daily Variance} = \exp(2u_y + \sigma_y^2) * [\exp(\sigma_y^2) - 1] =$	15.04748
$\sigma_n^2 = \text{Monthly Average variance} = \ln\{V(x) / (n[E(x)]^2 + 1)\} =$	0.12289
$\sigma_n = \text{Monthly Average standard deviation} = \sigma_n^2^{(0.5)} =$	0.35056
$u_n = \text{n-day monthly average} = \ln(E(x)) - 0.5\sigma_n^2 =$	2.31135
<b>Monthly Average Limit = exp (<math>u_n + 1.645 * \sigma_n</math>)</b>	
<b>Monthly Avg Limit* =</b>	<b>17.96 ug/L</b>
(Lognormal distribution, 95th percentile of average monthly values)	

\*Based on sampling frequency of 1 time per month

**EXHIBIT 5**



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

DEVAL L. PATRICK  
Governor

TIMOTHY P. MURRAY  
Lieutenant Governor

IAN A. BOWLES  
Secretary

LAURIE BURT  
Commissioner

August 8, 2008

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

**Re: Water Quality Certification  
NPDES Permit MA0101681  
City of Pittsfield Wastewater Treatment Plant**

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 hereby certifies the referenced permit.

Sincerely,

Glenn Haas, Director  
Division of Watershed Management  
Bureau of Resource Protection

cc: Paul Hogan  
file

**EXHIBIT 6**

**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),

**City of Pittsfield  
Department of Public Works  
Pittsfield, Massachusetts 01201**

is authorized to discharge from a facility located at

**Pittsfield Wastewater Treatment Plant  
901 Holmes Road  
Pittsfield, Massachusetts 01201**

to receiving water named **Housatonic River (Class B – Warm Water Fishery)**

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

The Towns of Dalton, Lenox, Hinsdale, and Lanesborough are included as co-permittees for Part I.D. Unauthorized Discharges and Part I.E. Operation and Maintenance of the Sewer System, which include conditions regarding the operation and maintenance of the wastewater collection systems owned and operated by the Towns. Each of the co-permittees is responsible for specific activities required by these sections, including the reporting on such activities. The responsible Towns are:

<b>Town of Dalton</b>	<b>Town of Lenox</b>	<b>Town of Hinsdale</b>	<b>Town of Lanesborough</b>
<b>462 Main Street</b>	<b>Department of Public Works</b>	<b>35 South Street</b>	<b>83 N. Main Street</b>
<b>Dalton, MA 01226</b>	<b>275 Main Street</b>	<b>P.O. Box 803</b>	<b>Lanesborough, MA 01237</b>
	<b>Lenox, MA 01240</b>	<b>Hinsdale, MA 01235</b>	

This permit shall become effective on October 1, 2008.

This permit and the authorization to discharge expire at midnight, five years from the last day of the month preceding the effective date.

This permit supersedes the permit issued on October 3, 2000.

This permit consists of 15 pages in Part I including effluent limitations, monitoring requirements, **Attachment A (Freshwater Chronic Toxicity Test Procedure and Protocol), Attachment B (Sludge Compliance Guidance), Attachment C (Reassessment of Technically Based Local Limits), and Attachment D (NPDES Permit Requirement for Industrial Pretreatment Program Annual Report),** and Part II including General Conditions and Definitions.

Signed this 22<sup>nd</sup> day of August, 2008

/s/ SIGNATURE ON FILE

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Stephen S. Perkins, Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

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

Part I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Outfall 003

a. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 003 to the Housatonic River. Such discharge shall be limited and monitored by the permittee as specified below.

Effluent Characteristic	Unit	Discharge Limitation			Monitoring Requirement <sup>*3</sup>	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow <sup>*2</sup> Flow <sup>*2</sup>	MGD MGD	17.0 Report	— —	Report Report	Continuous Continuous	Recorder Recorder
CBOD <sub>5</sub> <sup>*4</sup> CBOD <sub>5</sub> <sup>*4</sup>	mg/l lbs/day	10 1420	10 1420	Report Report	3/Week 3/Week	24-Hour Composite <sup>*5</sup> 24-Hour Composite
TSS <sup>*4</sup> TSS <sup>*4</sup>	mg/l lbs/day	20 2840	25 3550	Report Report	3/Week 3/Week	24-Hour Composite <sup>*5</sup> 24-Hour Composite
pH Range <sup>*1</sup>		6.5-8.3 SU (See Permit Part I.A.1.c.)			2/Day	Grab
<i>E. coli</i> <sup>*1,*6</sup> (April 1 <sup>st</sup> - October 31 <sup>st</sup> )	cfu/100 ml	126	—	409	2/Week	Grab
Fecal Coliform Bacteria <sup>*1,*6</sup> (April 1 <sup>st</sup> - October 31 <sup>st</sup> )	cfu/100 ml	200	—	400	2/Week	Grab
Total Residual Chlorine <sup>*1,*7,*8</sup> (April 1 <sup>st</sup> - October 31 <sup>st</sup> )	µg/l	21.7	—	37.4	2/Day	Grab
Dissolved Oxygen <sup>*1</sup> (April 1 <sup>st</sup> - October 31 <sup>st</sup> )	mg/l	Maintain a minimum of 6.0 mg/l at all times			1/Day	Grab

Part I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued)

1. Outfall 003

a. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 003 to the Housatonic River. Such discharge shall be limited and monitored by the permittee as specified below.

Effluent Characteristic	Unit	Discharge Limitation			Monitoring Requirement <sup>3</sup>	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Phosphorus, Total <sup>9</sup> (April 1 <sup>st</sup> - October 31 <sup>st</sup> ) (November 1 <sup>st</sup> - March 31 <sup>st</sup> )	mg/l	0.1	—	Report	3/Week	24-Hour Composite <sup>*5</sup>
	mg/l	1.0	—	—	1/Week	24-Hour Composite <sup>*5</sup>
Ortho-phosphorus, dissolved (November 1 <sup>st</sup> - March 31 <sup>st</sup> ) Ortho-phosphorus, dissolved (November 1 <sup>st</sup> - March 31 <sup>st</sup> )	mg/l	Report	—	—	1/Week	24-Hour Composite <sup>*5</sup>
	lbs/day	Report	—	—	1/Week	24-Hour Composite <sup>*5</sup>
Total Nitrogen <sup>*10</sup>	mg/l	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
	lbs/day	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
Ammonia Nitrogen <sup>*11</sup> (April 1 <sup>st</sup> - April 30 <sup>th</sup> ) (May 1 <sup>st</sup> - May 31 <sup>st</sup> ) (June 1 <sup>st</sup> - September 30 <sup>th</sup> ) (Oct. 1 <sup>st</sup> - March 31 <sup>st</sup> )	mg/l	10	10	15	2/Week	24-Hour Composite <sup>*5</sup>
	mg/l	5.0	5.0	8.0	2/Week	24-Hour Composite <sup>*5</sup>
	mg/l	1.0	1.0	1.5	2/Week	24-Hour Composite <sup>*5</sup>
	mg/l	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>

Part I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued)

1. Outfall 003

a. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 003 to the Housatonic River. Such discharge shall be limited and monitored by the permittee as specified below.

Effluent Characteristic	Unit	Discharge Limitation			Monitoring Requirement <sup>3</sup>	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Total Kjeldahl Nitrogen <sup>*10</sup>	mg/l	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
Total Nitrate Nitrogen <sup>*10</sup>	mg/l	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
Total Nitrite Nitrogen <sup>*10</sup>	mg/l	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
Total Nitrogen <sup>*10</sup>	mg/l	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
Total Nitrogen <sup>*10</sup>	lbs/day	Report	—	Report	1/Week	24-Hour Composite <sup>*5</sup>
Aluminum	µg/l	171	—	Report	1/Month	24-Hour Composite <sup>*5</sup>
Copper, Total <sup>*12</sup>	µg/l	18.0	—	22.9	1/Month	24-Hour Composite <sup>*5</sup>
Lead, Total <sup>*13</sup>	µg/l	Report	—	Report	1/Month	24-Hour Composite <sup>*5</sup>
Whole Effluent Toxicity <sup>*14,*15,*16,*17</sup>	%	LC <sub>50</sub> ≥ 100% C-NOEC ≥ 50%			2/Year 2/Year	24-Hour Composite <sup>*5</sup> 24-Hour Composite <sup>*5</sup>

Footnotes:

- \*1. Required for State Certification
- \*2. Report annual average, monthly average, and the maximum daily flow. The limit is an annual average, which shall be calculated as the arithmetic mean of the monthly average flow for the reporting month and the monthly average flows of the eleven previous months.
- \*3. All required effluent samples shall be collected at the point specified in Part I.A.1.g. of this permit. Any change in the sampling location must be reviewed and approved in writing by EPA and MassDEP.

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 attached to the applicable discharge monitoring report (DMR) that is submitted to EPA.

All samples shall be tested using the 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 is required for the influent and effluent.
- \*5. A 24-hour composite sample shall consist of at least twenty-four (24) grab samples taken during one consecutive 24-hour period, either collected at equal intervals and combined proportional to flow or continuously collected proportional to flow.
- \*6. *E. coli* and fecal coliform bacteria limitations and monitoring requirements are seasonal (April 1<sup>st</sup> through October 31<sup>st</sup>). The monthly average limits are expressed as geometric means. The fecal coliform limitations and monitoring requirements shall expire one year from the effective date of this permit. The *E. coli* limitations and monitoring requirements shall be report-only for the first year that this permit is in effect, and the limitations shall become effective one year from the effective date of this permit. *E. coli* and fecal coliform bacteria samples shall be collected concurrently. Bacteria samples shall also be collected concurrently with total residual chlorine samples.
- \*7. Total residual chlorine (TRC) limitations and monitoring requirements are in effect from April 1<sup>st</sup> through October 31<sup>st</sup>. The permittee is not authorized to discharge chlorine from November 1<sup>st</sup> through March 31<sup>st</sup>. Each week, two of the total residual chlorine samples shall be collected concurrently with the required fecal coliform bacteria and *E. coli* samples.

The minimum level (ML) for total residual chlorine is defined as 20 µg/l. EPA defines the minimum level as the level at which the entire analytical system shall give recognizable signal and calibration points. For total residual chlorine, this is the minimum level for chlorine using EPA-approved methods found in Standard Methods for the Examination of Water and Wastewater, 20<sup>th</sup> Edition, Method 4500CL-E and G. One of these methods must be used to determine total residual chlorine. For effluent limitations less than 20 µg/l, compliance/non-compliance shall be determined based on the ML. Sample results of 20 µg/l or less shall be reported as zero on the discharge monitoring report (DMR).

For every day that more than two TRC samples are analyzed, the monthly DMR shall include an attachment documenting the individual grab sample results for that day, the date and time each

sample was collected, the analytical method used, and a summary of any operational modifications implemented in response to the sample results. This requirement applies to all samples taken, including screening level and process control samples. All test results using an EPA-approved analytical method 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)).

- \*8 Chlorination and dechlorination systems shall include an alarm system for indicating interruptions or malfunctions of the chlorine and dechlorination chemical dosing systems within 60 days of the effective date of the permit. Any interruption or malfunction of the chlorine dosing system that may have resulted in levels of chlorine which were inadequate for achieving effective disinfection, or interruptions or malfunctions of the disinfection 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 reduced levels of chlorine or dechlorination chemicals were added to the effluent.
- \*9 The 0.1 mg/l total phosphorus limit is a 60 day rolling average limit and applies for the period of April 1<sup>st</sup> - October 31<sup>st</sup>. The 60 day average value for each day in a given month, beginning on the 60<sup>th</sup> day after April 1<sup>st</sup>, must be calculated and the highest 60 day average value for that month must be reported on the monthly discharge monitoring report (DMR). In addition, the maximum daily value must be reported for each month. For the months of April and May, the 30 day average value shall be reported as a report-only requirement. For the first four years that this permit is in effect, the permittee shall achieve the following total phosphorus limitations from April 1<sup>st</sup> - October 31<sup>st</sup> while working towards achieving compliance with the new 0.1 mg/l seasonal total phosphorus limitation (see Part I.B. of this permit, Schedule of Compliance): 1.0 mg/l average monthly, 1.0 mg/l average weekly, and 1.5 mg/l maximum daily.
- The 1.0 mg/l limit is a monthly average limit and applies for the period of November 1<sup>st</sup>-March 31<sup>st</sup>. The monthly average and maximum daily values shall be reported on each month's discharge monitoring report.
- Monitoring results for total phosphorus during the winter months (November 1<sup>st</sup> - March 31<sup>st</sup>) shall be report-only for the first winter period that this permit is in effect (see Part I.B. of this permit, Schedule of Compliance).
- These permit limits may be modified, subject to public notice and comment, based upon revisions to the water quality standards, compliance with the requirements of a Total Maximum Daily Load (TMDL), or upon a demonstration that an alternative permit limit will achieve water quality standards and the goals of the Clean Water Act.
- \*10 See Part I.C. Special Conditions, for requirements to evaluate and implement optimization of nitrogen removal. The weekly total Kjeldahl nitrogen, total nitrite, and total nitrate samples shall be collected concurrently. These samples shall also be collected concurrently with one of the ammonia nitrogen samples. The results of the weekly total Kjeldahl nitrogen, total nitrite, and total nitrate analyses may be used to determine the concentration and mass loading of total nitrogen.
- \*11 One of the ammonia nitrogen samples shall be collected concurrently with the weekly total nitrogen, total Kjeldahl nitrogen, total nitrite, and total nitrate samples.

- \*12 Samples shall be analyzed for total copper using one of the EPA-approved analytical methods found in 40 CFR § 136 that have a minimum level (ML) of 5.0 µg/l. Sample results of 5.0 µg/l or less shall be reported as zero on the discharge monitoring report.
- \*13 Samples shall be analyzed for lead using one of the EPA-approved analytical methods found in 40 CFR § 136 that have a minimum level (ML) of 0.5 µg/l. Sample results of 0.5 µg/l or less shall be reported as zero on the discharge monitoring report.
- \*14 The LC<sub>50</sub> is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limitation means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.
- \*15 The chronic-no observed effect concentration (C-NOEC) is defined as the highest concentration of toxicant or effluent which organisms are exposed to 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 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 "50% or greater" limit is defined as a sample which is composed of 50% (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 1.97.
- \*16 The permittee shall conduct chronic (and modified acute) toxicity tests two times per year, in accordance with the schedule table below. The chronic test may be used to calculate the LC<sub>50</sub> at the 48-hour exposure interval. The permittee shall test the daphnid, *Ceriodaphnia dubia*, only. Toxicity test samples shall be collected during the second week of the months of January and July. The test results shall be submitted by the last day of the month following the completion of the test. The test results are due February 28<sup>th</sup> and August 31<sup>st</sup>, respectively. The tests must be performed in accordance with the 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
January July	February 28 <sup>th</sup> August 31 <sup>st</sup>	<i>Ceriodaphnia dubia</i> (daphnid)  See <b>Attachment A</b>	≥ 100 %	≥ 50 %

After submitting a **minimum** of four consecutive sets of whole effluent toxicity (WET) test results, all of which demonstrate compliance with the WET permit limits, the permittee may request a reduction in the frequency of required WET testing. 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 requirements have been changed.

- \*17. 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**. If the permittee uses an alternative dilution water, the ambient water will still need to be tested.

Part I.A.1. (continued)

- b. The discharge shall not cause a violation of the water quality standards of the receiving waters.
  - c. The pH of the effluent shall not be less than 6.5 nor greater than 8.3 Standard Units (SU), and not more than 0.5 SU outside of the natural background range, at any time. There shall be no change from natural background conditions that would impair any use assigned to this class.
  - 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 carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>). The percent removal shall be based on monthly average values.
  - g. Samples taken in compliance with the monitoring requirements stated above shall be taken a point prior to mixing with other streams and shall be representative of the discharge. Samples shall be taken prior to chlorination with the exception of fecal coliform bacteria, *E. coli*, and total residual chlorine samples, which shall be taken after disinfection.
  - h. If the average annual flow in any calendar year exceeds 80 percent of the facility's design flow, the permittee shall submit a report to MassDEP by March 31<sup>st</sup> of the following calendar year describing their plans for future flow increases and how they will maintain compliance with the flow limitation and all other effluent limitations and conditions in the permit.
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/or
  - 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.

3. Prohibitions Concerning Interference and Pass Through

- a. Pollutants introduced into the POTW by a non-domestic source (user) shall not pass through the POTW or interfere with the operation of the works.

4. Toxics Control

- a. The permittee shall not discharge any pollutants or combinations 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 that has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

5. Numerical Effluent Limitations for Toxicants

EPA or MassDEP 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. SCHEDULE OF COMPLIANCE**

1. 0.1 mg/l Total Phosphorus Limitation ( April 1<sup>st</sup> - October 31<sup>st</sup>)

No later than four years from the effective date of the permit, the permittee shall achieve compliance with the 0.1 mg/l total phosphorus limitation from April 1<sup>st</sup> - October 31<sup>st</sup>. This limit shall be achieved in accordance with the following schedule:

- a. Complete conceptual design of necessary upgrades no later than twelve months from the effective date of the permit.
- b. Complete plans and specifications for necessary upgrades no later than twenty-four months from the effective date of the permit.
- c. Complete construction of necessary upgrades and attain compliance with the April 1<sup>st</sup> - October 31<sup>st</sup> final effluent limits for total phosphorus no later than forty-eight months from the effective date of the permit.

During this four-year period, the following total phosphorus limitations shall be met from April 1<sup>st</sup> - October 31<sup>st</sup>: 1.0 mg/l average monthly, 1.0 mg/l average weekly, and 1.5 mg/l maximum daily. The permittee shall monitor the total phosphorus concentration in the discharge at the frequency specified in Part I.A.1.a. of this permit.

2. 1.0 mg/l Total Phosphorus Limitation (November 1<sup>st</sup> - March 31<sup>st</sup>)

The 1.0 mg/l total phosphorus limit for the winter period (November 1<sup>st</sup> - March 31<sup>st</sup>) shall become effective one year from the effective date of the permit. Specifically, the permittee shall report the average monthly and maximum daily total phosphorus concentrations in the discharge for the first winter period following the effective date of the permit while working towards meeting this new limitation.

**C. SPECIAL CONDITIONS**

Within **one year of the effective date of the permit**, the permittee shall complete an evaluation of alternative methods of operating the existing wastewater treatment facility to optimize the removal of nitrogen, and submit a report to EPA and the MassDEP documenting this evaluation and presenting a description of recommended operational changes. The methods to be evaluated include, but are not limited to, operational changes designed to enhance nitrification (seasonal and year-round), incorporation of anoxic zones, septage receiving policies and procedures, and side stream management. The permittee shall implement the recommended operational changes in order to maintain the existing mass loading of total nitrogen. The annual average total nitrogen load from this facility (2004 – 2005) is estimated to be 1241 lbs/day.

The permittee shall also submit an annual report to EPA and the MassDEP by **February 1<sup>st</sup>** of each year, that summarizes activities related to optimizing nitrogen removal efficiencies, documents the annual nitrogen discharge load from the facility, and tracks trends relative to the previous year.

**D. UNAUTHORIZED DISCHARGES**

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from outfall 003, as described 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 to EPA and MassDEP in accordance with Section D.1.e.(1) of the General Requirements of this permit (twenty-four hour reporting).

Notification of SSOs to MassDEP shall be made on its SSO reporting form (which includes MassDEP Regional Office telephone numbers). The reporting form and instructions for its completion may be found on-line at: <http://www.mass.gov/dep/water/approvals/surffms.htm#sso>.

The following towns that contribute wastewater flow to the Pittsfield Wastewater Treatment Plant shall also report discharges of wastewater from any other point source, including sanitary sewer overflows (SSOs), which are not authorized by this or any other permit and shall be reported in accordance with Section D.1.e.(1) of the General Requirements of this permit (twenty-four hour reporting): Dalton, Lenox, Hinsdale, and Lanesborough.

**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 of this permit and the following terms and conditions:

1. **Maintenance Staff.**

The permittee and co-permittees shall each 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-permittees shall each 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-permittees shall each 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 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 and co-permittees' programs 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 plans 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.
- The permittee shall require, through appropriate agreements, that all member communities (i.e., those listed as co-permittees) control discharges to the permittee's POTW sufficiently to ensure that high flows do not cause or contribute to a violation of the permittee's collection system.

Reporting Requirements:

A summary report of all actions taken to minimize I/I during the previous calendar year shall be submitted to EPA and MassDEP annually, by **February 28<sup>th</sup>**. The summary report shall, at a minimum, include:

- A map and a description of inspection and maintenance activities 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 and the maximum monthly 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 Unauthorized Discharges section of this permit.

4. Alternative 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).

**F. SLUDGE CONDITIONS**

1. The permittee is required to 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 (**Attachment B**) 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. Reports are due annually by **February 19<sup>th</sup>**. 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<sup>th</sup>** 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

#### G. DEVELOPMENT OF LIMITATIONS FOR INDUSTRIAL USERS

1. Pollutants introduced into the POTW by a non-domestic source (user) shall not pass through the POTW or interfere with the operation of the works.
2. The permittee shall develop and enforce specific effluent limits (local limits) for any Industrial User(s), and all other users as appropriate, which together with appropriate changes in the POTW's facilities or operation, are necessary to ensure 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 report to EPA analyzing local limits. As part of this evaluation, the permittee shall assess how the POTW performs with respect to the 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 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. Upon completion of its review, EPA will notify the POTW if the evaluation reveals that the local limits should be revised. Should the local limits need to be revised, the permittee shall complete the revisions within 120 days of notification by EPA and submit the revisions to EPA for approval. If local limits are to be updated, revisions should be performed in accordance with EPA's Local Limits Development Guidance (July 2004).

#### H. INDUSTRIAL PRETREATMENT PROGRAM

1. The permittee shall implement an Industrial Pretreatment Program (IPP) as required by 40 CFR Part 403. The industrial pretreatment program shall be operated in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program and the General Pretreatment Regulations at 40 CFR Part 403. At a minimum, the permittee

shall perform the following activities in implementing and operating its industrial pretreatment program:

- a. Carry out the 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.
  - b. 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.
  - c. Obtain appropriate remedies for noncompliance by any industrial user with any pretreatment standard and/or requirement.
  - d. Maintain an adequate revenue structure for continued implementation of the Pretreatment Program.
2. The permittee shall provide EPA and MassDEP with an annual report required by 40 CFR § 403.12(i) by **October 31<sup>st</sup>** of each year for the permittee's reporting period of September 1<sup>st</sup> – August 31<sup>st</sup>. The annual report shall be consistent with the format described in **Attachment D** of this permit.
  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. On October 14, 2005 EPA published in the Federal Register final changes to the General Pretreatment Regulations. The final "Pretreatment Streamlining Rule" is designed to reduce the burden to industrial users and provide regulatory flexibility in technical and administrative requirements of industrial users and POTWs. **Within 90 days of the effective date of this permit**, the permittee must submit to EPA all required modifications of the Streamlining Rule in order to be consistent with the provisions of the newly promulgated Rule. To the extent that the POTW legal authority is not consistent with the required changes, they must be revised and submitted to EPA for review.

## I. 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 15<sup>th</sup> day of the following month.

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

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

Signed and dated originals of Discharge Monitoring Reports and all other reports required herein, with the exception of whole effluent toxicity test reports, shall be submitted to the State at:

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

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, 2<sup>nd</sup> Floor  
Worcester, Massachusetts 01608

Signed and dated Industrial Pretreatment Program reports required by this permit shall be submitted to EPA and the State at:

Environmental Protection Agency  
Attn: Justin Pimpare  
One Congress Street, Suite 1100 - CMU  
Municipal Assistance Unit (CMU)  
Boston, Massachusetts 02114

The State Agency is:

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

#### **J. STATE PERMIT CONDITIONS**

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 are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP 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

**EXHIBIT 7**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Bruce Collingwood, P.E.  
Commissioner  
Department of Public Works and Utilities  
City Hall  
70 Allen Street  
Pittsfield, MA 01201

8/28/08

Re: NPDES Permit No. MA0101681  
City of Pittsfield Wastewater Treatment Plant

Dear Mr. Collingwood:

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 EPA's response to the comments received on the draft permit, Part II General Conditions, 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 Division 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).

We appreciate your cooperation throughout the development of this permit. Should you have any questions concerning the permit, feel free to contact Meridith Timony at 617-918-1533.

Sincerely,

Roger Janson, Chief  
NPDES Municipal Permits Branch  
Office of Ecosystem Protection

Enclosures: Final Permit, MA State Water Quality Certification, Response to Comments, Part II General Conditions, Appeals Information

cc: MassDEP, Division of Watershed Management  
All Interested Parties

CONCURRENCES								
SYMBOL	OMP	CMO						
SURNAME	Timony	Janson						
DATE	8-12-08	8/22/08						

**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.

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PS Form 3800, August 2006 See Reverse for Instructions

*Bruce Collingwood*