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 Chicopee
Department of Public Works
80 Medina Street
Chicopee, MA 01013

is authorized to discharge from the facility located at

Chicopee Water Pollution Control Facility
80 Medina Street
Chicopee, MA 01013

to receiving water named: **Connecticut River, Chicopee River, Cooley Brook, and Willimansett Brook (Connecticut River Basin)**

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

This permit shall become effective on **(See ** below)**

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

This permit supersedes the permit issued on May 17, 2005

This permit consists of 23 pages in Part I including effluent limitations and monitoring requirements, Part II Standard Conditions, and Attachments A (Freshwater Acute Toxicity Test Procedure and Protocol, February 2011), B (List of approved CSOs), C (Reassessment of Technically Based Industrial Discharge Limits) and D (NPDES Permit Requirement For Industrial Pretreatment Annual Report).

Signed this day of

Stephen Perkins, Director	David Ferris, Director
Office of Ecosystem Protection	Massachusetts Wastewater Management Program
Environmental Protection Agency	Department of Environmental Protection
Boston, MA	Commonwealth of Massachusetts
	Boston, MA

** This permit will become effective on the date of signature if no comments are received during public notice. If comments are received during public notice, this permit will become effective no sooner than 30 days after signature.

PART I

A.1. During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number **010**. Such discharge shall be limited and monitored as specified below.

EFFLUENT CHARACTERISTIC	**EFFLUENT LIMITS**					**MONITORING REQUIREMENTS**	
PARAMETER	**AVERAGE MONTHLY**	**AVERAGE WEEKLY**	**AVERAGE MONTHLY**	**AVERAGE WEEKLY**	**MAXIMUM DAILY**	**MEASUREMENT FREQUENCY**	**SAMPLE[3] TYPE**
FLOW[2]	*********	*********	15.5 MGD	*********	Report MGD	CONTINUOUS	RECORDER
FLOW[2]	*********	*********	Report MGD	*********	*********	CONTINUOUS	RECORDER
BOD_5 [4]	3878 lbs/Day	5817 lbs/Day	30 mg/l	45 mg/l	Report mg/l	5/WEEK	24-HOUR COMPOSITE[5]
TSS [4]	3878 lbs/Day	5817 lbs/Day	30 mg/l	45 mg/l	Report mg/l	5/WEEK	24-HOUR COMPOSITE[5]
pH RANGE[1]	6.0 - 8.3 SU					5 DAYS/WK	GRAB
TOTAL CHLORINE RESIDUAL[1,6]	*********	**********	0.89 mg/l	*********	1.0 mg/l	3/DAY	GRAB
ESCHERICHIA COLI[7] April 1 to October 31	*********	**********	126 cfu/100 ml	*********	409 cfu/100 ml	1/WEEK	GRAB
TOTAL KJELDAHL NITROGEN, NITRATE, NITRITE, AMMONIA AS NITROGEN, and TOTAL NITROGEN[8]	Report lbs/day	**********	Report mg/l	*********	Report mg/l	1/WEEK	24-HOUR COMPOSITE[5]
ALUMINUM[9]	*****	**********	87 ug/l	*********	Report ug/l	2/MONTH	24-HOUR COMPOSITE[5]
WHOLE EFFLUENT TOXICITY [10, 11, 12]	Acute $LC_{50} \geq 100\%$					4/YEAR	24-HOUR COMPOSITE[5]

Sampling location: Composite samples taken immediately prior to chlorine contact chamber; grab samples taken at the discharge from chlorine contact chamber.

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 reported as a rolling average. The value will be calculated as the arithmetic mean of the monthly average flow for the reporting month and the monthly average flows of the previous eleven months. An attachment to the monthly DMRs containing the date, time of initiation, duration, and estimated total daily volume for all bypasses, as well as the total and maximum WWTF flow for each day that there was a bypass, shall be submitted each month. The permittee shall not accept septage during any calendar day in which a bypass of secondary treatment is anticipated.

3. All required effluent samples shall be collected at the point specified on page 2. Any change in 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 the week each month. Occasional deviations from the routine sampling program are allowed, but the reason for the deviation shall be documented in correspondence appended to the applicable discharge monitoring report. The permittee shall notify EPA and MassDEP in writing of any change in sampling location.

   All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. All samples shall be 24 hour composites unless specified as a grab sample in 40 CFR §136.

4. Sampling required for influent and effluent.

5. 24-hour composite samples will 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 proportionally to flow.

6. Total residual chlorine monitoring is required whenever chlorine is added to the treatment process (i.e. TRC sampling is not required if chlorine is not added for disinfection or other purpose). The limitations are in effect year-round.

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

7. The monthly average limit for Escherichia coli is expressed as a geometric mean. Escherichia coli monitoring shall be conducted concurrently with a total residual chlorine sample. An attachment to the monthly DMRs containing all individual sampling results for *Escherichia coli* bacteria, and total residual chlorine, including the date and time of the sample and whether or not the facility was bypassing at the time of the sample, shall be submitted each month.

8. See Part I.B. Special Conditions, for requirements to evaluate and implement optimization of nitrogen removal. The weekly total Kjeldahl nitrogen, nitrite, nitrate and ammonia samples shall be collected concurrently. The results of the weekly total Kjeldahl nitrogen, nitrite, nitrate and ammonia analyses may be used to determine the concentration and mass loading of total nitrogen. The permittee shall report the monitoring results for each species of nitrogen as well as total nitrogen on the discharge monitoring reports.

9. The Permittee shall comply with the aluminum limit in accordance with the facility upgrade schedule contained in Section J below. In the interim, the facility shall be operated in order to minimize the use of aluminum compounds to the extent practicable while meeting its total suspended solids limit.

10. The permittee shall conduct acute toxicity tests *four* times per year. The permittee shall test the fathead minnow, Pimephales promelas, only. Toxicity test samples shall be collected during 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 31, June 30, September 30 and December 31, respectively. The tests must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit.

Test Dates	**Submit Results By:**	**Test Species**	**Acute Limit LC_{50}**
February May August November	March 31 June 30 September 30 December 31	Pimephales promelas (fathead minnow)	≥ 100%

After submitting **one year** and a **minimum** of four consecutive sets of WET test results, all of which demonstrate compliance with the WET permit limits, the permittee may

request a reduction in the WET testing requirements. The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from the EPA that the WET testing requirement has been changed.

11. The LC_{50} 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.

12. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall either follow procedures outlined in **Attachment A (Toxicity Test Procedure and Protocol) Section IV., DILUTION WATER** in order to obtain an individual approval for use of an alternate dilution water, or the permittee shall follow the Self-Implementing Alternative Dilution Water Guidance which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. This guidance is found in Attachment G of *NPDES Program Instructions for the Discharge Monitoring Report Forms (DMRs)* which may be found on the EPA, Region I web site at http://www.epa.gov/Region1/enforcementandassistance/dmr.html. If this guidance is revoked, the permittee shall revert to obtaining individual approval as outlined in **Attachment A**. Any modification or revocation to this guidance will be transmitted to the permittees. 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 6.0 or greater than 8.3 at any time.

c. The discharge shall not cause objectionable discoloration of the receiving waters.

d. The effluent shall not contain a visible oil sheen, foam, or floating solids at any time.

e. The permittee shall minimize the use of chlorine while maintaining adequate bacterial control.

f. The results of sampling for any parameter done in accordance with EPA approved methods above its required frequency must also be reported.

g. 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 of the

following calendar year describing its plans for further flow increases and describing how it will maintain compliance with the flow limit and all other effluent limitations and conditions.

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 which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; 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:

      (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 POTW's by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.

4. 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.

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. SPECIAL CONDITIONS FOR NITROGEN

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 mass discharge of total nitrogen less than the existing mass loading of total nitrogen. The baseline annual average total nitrogen load from this facility is estimated to be 1,618 lbs/day.

The permittee shall also submit an annual report to EPA and the MassDEP by **February 1st** 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.

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(s) listed in Part I A.1 (outfall 010), Part H (outfall 011), and the CSOs listed in **Attachment B** 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 DEP Regional Office telephone numbers). The reporting form and instruction for its completion may be found on-line at http://www.mass.gov/dep/water/approvals/surffms.htm#sso.

D. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

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

1. Maintenance Staff

   The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.

2. Preventative Maintenance Program

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:

The permittee shall continue to implement a plan to control infiltration and inflow (I/I) to the separate sewer system. The plan shall be updated and 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 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 evaluation of the impact of completed and planned sewer separation projects on reduction of infiltration and inflow.
- 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 MassDEP annually, **by March 31**. 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 and 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.

4. Alternate Power Source

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

E. COMBINED SEWER OVERFLOWS (CSOs)

1. Effluent Limitations

During wet weather, the permittee is authorized to discharge storm water/wastewater from combined sewer outfalls listed in **Attachment B**, subject to the following effluent limitations:

a. The discharges shall receive treatment at a level providing Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT) to control and abate conventional pollutants and Best Available Technology Economically Achievable (BAT) to control and abate non-conventional and toxic pollutants. The EPA has made a Best Professional Judgment (BPJ) determination that BPT, BCT, and BAT for combined sewer overflow (CSO) control includes the implementation of Nine Minimum Controls (NMC) specified below and detailed further in Part I.D.2, "Nine Minimum Controls Minimum Implementation Levels" of this permit:

(1) Proper operation and regular maintenance programs for the sewer system and the combined sewer overflows;

(2) Maximum use of the collection system for storage;

(3) Review and modification of the pretreatment program to assure CSO impacts are minimized;

(4) Maximization of flow to the POTW for treatment;

(5) Prohibition of dry weather overflows from CSOs;

(6) Control of solid and floatable materials in CSOs;

(7) Pollution prevention programs that focus on contaminant reduction activities;

(8) Public notification to ensure that the public receives adequate notification of CSO occurrences and impacts;

(9) Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

b. **Within 6 months of the effective date of this permit**, the permittee shall submit to EPA updated documentation on its implementation of the Nine Minimum Controls. Implementation of the Nine Minimum Controls is required by the effective date of the permit. EPA and MassDEP consider that approvable documentation must include the minimum requirements set forth in Part I.D.2 of this permit and additional activities the permittee can reasonably undertake.

c. The discharges shall not cause or contribute to violations of federal or state Water Quality Standards.

2. Nine Minimum Controls Minimum Implementation Levels

a. The permittee must implement the nine minimum controls in accordance with the documentation provided to EPA and MassDEP or as subsequently modified to enhance the effectiveness of the controls. This implementation must include the following controls plus other controls the permittee can reasonably undertake as set forth in the documentation.

b. Each CSO structure/regulator, pumping station and/or tidegate shall be routinely inspected, at a minimum of once per month, to insure that they are in good working condition and adjusted to minimize combined sewer discharges and tidal surcharging (NMC # 1, 2 and 4). The following inspection results shall be recorded: the date and time of inspection, the general condition of the facility, and whether the facility is operating satisfactorily. If maintenance is necessary, the permittee shall record: the description of the necessary maintenance, the date the necessary maintenance was performed, and whether the observed problem was corrected. The permittee shall maintain all records of inspections for at least three years.

Annually, no later than April 30th, the permittee shall submit a certification to MassDEP and EPA which states that the previous calendar year's monthly inspections were conducted, results recorded, and records maintained.

MassDEP and EPA have the right to inspect any CSO related structure or outfall at any time without prior notification to the permittee.

c. Discharges to the combined system of septage, holding tank wastes, or other material which may cause a visible oil sheen or containing floatable material are prohibited during wet weather when CSO discharges may be active (NMC # 3, 6, and 7).

d. Dry weather overflows (DWOs) are prohibited (NMC # 5). All dry weather sanitary and/or industrial discharges from CSOs must be reported to EPA and MassDEP orally within 24 hours of the time the permittee becomes aware of the circumstances and a written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances (Paragraph D.1.e of Part II of this permit).

e. The permittee shall quantify and record all discharges from combined sewer outfalls (NMC # 9). Quantification may be through direct measurement or estimation. When estimating, the permittee shall make reasonable efforts, i.e. gauging or measurements, to verify the validity of the estimation technique. The following information must be recorded for each combined sewer outfall for each discharge event:

- Estimated duration (hours) of discharge;
- Estimated volume (gallons) of discharge;
- National Weather Service precipitation data from the nearest gage where precipitation is available at daily (24-hour) intervals and the nearest gage where precipitation is available at one-hour intervals. Cumulative precipitation per discharge event shall be calculated.

The permittee shall maintain all records of discharges for at least six years after the effective date of this permit.

Annually, no later than April 30th, the permittee shall submit a report containing the required discharge monitoring information for all combined sewer discharges during the previous calendar year.

f. The permittee shall install and maintain identification signs for all combined sewer outfall structures (NMC # 8). The signs must be located at or near the combined sewer outfall structures and easily readable by the public. These signs shall be a minimum of 12 x 18 inches in size, with white lettering against a green background, and shall contain the following information:

CITY OF CHICOPEE

WET WEATHER
SEWAGE DISCHARGE
OUTFALL (discharge serial number)

3. Nine Minimum Controls Reporting Requirement

Annually, no later than April 30th, the permittee shall submit a report summarizing activities during the previous calendar year relating to compliance with the nine minimum controls including the required information on the frequency, duration, and volume of discharges from each CSO.

4. CSO Diversion Structure 7.1 – Jones Ferry CSO Treatment Facility

a. Discharges from CSO Diversion Structure 7.1, the Jones Ferry CSO Treatment Facility, are subject to additional technology based numeric effluent limits as enhanced minimum controls for CSO Outfall 007, as set forth in Part I.E.4.b. Additional monitoring and reporting requirements also apply.

E.4.b. CSO Diversion Structure 7.1, Jones Ferry CSO Treatment Facility, Effluent Limitations and Monitoring Requirements						
EFFLUENT CHARACTERISTIC	**EFFLUENT LIMITS**				**MONITORING REQUIREMENTS**	
PARAMETER	**AVERAGE MONTHLY**		**MAXIMUM DAILY**		**MEASUREMENT FREQUENCY**	**SAMPLE TYPE**
FECAL COLIFORM[*1, *2, *3, *5]	200 cfu/100 ml		400 cfu/100 ml		1 EVENT/MONTH, HOURLY	GRAB
TOTAL RESIDUAL CHLORINE[*4, *4]	0.89 mg/l		1.0 mg/l		1 EVENT/MONTH, HOURLY	GRAB
pH RANGE	Report Maximum and Minimum, S.U.				1/MONTH	GRAB
BOD_5	Report mg/l and lb/day		Report mg/l and lb/day		2/YEAR	EVENT COMPOSITE[*6]
TSS	Report mg/l and lb/day		Report mg/l and lb/day		2/YEAR	EVENT COMPOSITE[*6]
TOTAL KJELDAHL NITROGEN, NITRATE, NITRITE, AMMONIA AS NITROGEN and TOTAL NITROGEN [*7]	Report mg/l and lbs/day		********		2/YEAR	EVENT COMPOSITE[*6]
WHOLE EFFLUENT TOXICITY [*8,*9]	Report LC_{50}				2/YEAR	EVENT COMPOSITE[*6]
PARAMETER	**TOTAL MONTHLY**	**MAXIMUM HOURLY**	**DURATION**	**FREQUENCY**	**MEASUREMENT FREQUENCY**	**SAMPLE TYPE**
FLOW (Treated Flow from Facility)[*9]	Report MG	Report MGD	Report total hours	Report number of events	EVERY EVENT	CONTINUOUS
FLOW (Untreated Flow to River)[*9]	Report MG	Report MGD	Report total hours	Report number of events	EVERY EVENT[*]	CONTINUOUS
FLOW (Drained back to WPCD)[*9,*10]	Report MG	********	********	Report number of events	EVERY EVENT[*]	CONTINUOUS

*Footnotes

*1. The fecal coliform effluent limits apply for flows up to a maximum hourly flow rate of 35.2 MGD. Samples collected when flow exceeds 35.2 MGD shall not be used to calculate compliance with the effluent limitations. During high flow conditions, at least one grab sample/month is to be collected and analyzed for monitoring purposes only. This distinction is made because the facility is required to disinfect flows up to a 35.2 MGD flow rate (the estimated peak CSO flow rate from CSO diversion structure 7.1 during a 3-month design storm), but is equipped to pump flow at rates greater than 35.2 MGD to allow disinfection of larger storms.

*2. Hourly sampling for fecal coliform will be performed for a four-hour duration. If the event lasts longer than four (4) hours, no further sampling is required. If hourly sampling is started and the event does not last at least four hours, another event during that month will be used for the hourly testing.

*3. The permittee shall continue concurrent monitoring for E. coli and fecal coliform through August 2011 consistent with the 2006 Consent Order. The permittee shall submit by November 30, 2011, a report containing a side by side listing of all E. coli and fecal coliform results along with a summary of E. coli analytical methods used and an assessment of practical issues encountered in their application. The permittee shall also, in connection with its application for reissuance of this permit upon its expiration, submit an additional six months of concurrent E. coli monitoring data. This additional data shall be collected within one year of the date of application.

*4. Hourly sampling for total residual chlorine will be performed for a four-hour duration. If the event lasts longer than four (4) hours, sampling will be required every four hours after the fourth hour. If hourly sampling is started and the event does not last at least four hours, another event during that month will be used for the hourly testing.

*5. The limits for fecal coliform are expressed as a geometric mean. Fecal coliform monitoring shall be conducted concurrently with total residual chlorine monitoring.

*6. Event composite must represent an event duration of at least four hours. An event composite is considered to represent an event duration of at least four hours where (i) the composite represents at least four consecutive hours of flow through the facility; or (ii) the composite

represents at least four hours of flow during a 24 hour period starting at approximately 8:00 AM each day (± 2 hours) coinciding with the permittee's composite sampling schedule, if flow through the facility is discontinuous.

*7. The total Kjeldahl nitrogen, nitrite, nitrate and ammonia samples shall be collected concurrently. The results of the total Kjeldahl nitrogen, nitrite, and nitrate analyses may be used to determine the concentration and mass loading of total nitrogen. The permittee shall report the monitoring results for each species of nitrogen as well as total nitrogen.

*8. The permittee shall conduct acute toxicity tests two times per year in May and November. If weather does not permit collection of a four hour composite in these months, the tests may be delayed to the first available event of four hour or more duration. The permittee shall test the fathead minnow, Pimephales promelas, only. The tests must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit, except that the permittee may use an alternate dilution water.

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*9. Permittee shall also submit monthly operating reports for the Jones Ferry CSO Treatment Facility. The monthly operating reports shall contain:

(i) Total precipitation for each day (whether or not there was flow through facility);
(ii) Dates on which flow through facility occurred;
(iii) Duration of flow through facility;
(iv) Treated flow from facility;
(v) Untreated flow to river;
(vi) Flow drained back to WPCD;
(vii) Monitoring results for each event.

*10. Flow drained from facility back to collection system to WPCD shall occur only when WPCD flows are below 25 MGD.

F. DEVELOPMENT OF LIMITATIONS FOR INDUSTRIAL USERS

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

2. 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 facilities or operation, are necessary to ensure continued compliance with the POTW's NPDES permit or sludge use or disposal practices. Specific local limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond. Within **120 days of the effective date of this permit**, the permittee shall prepare and submit a written technical evaluation to the EPA analyzing the need to revise local limits. As part of this evaluation, the permittee shall assess how the POTW performs with respect to influent and effluent 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 technical evaluation to assist in determining whether existing local limits need to be revised. Justifications and conclusions should be based on actual plant data if available and should be included in the report. Should the evaluation reveal the need to revise local limits, the permittee shall complete the revisions within 120 days of notification by EPA and submit the revisions to EPA for approval. The permittee shall carry out the local limits revisions in accordance with EPA's Local Limits Development Guidance (EPA 833-R-04-002A, July 2004).

G. INDUSTRIAL PRETREATMENT PROGRAM

1. The permittee shall implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the permittee's approved Pretreatment Program, and the General Pretreatment Regulations, 40 CFR 403. At a minimum, the permittee must perform the following duties to properly implement the Industrial Pretreatment Program (IPP):

   a. Carry out inspection, surveillance, and monitoring procedures which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the Pretreatment Standards. At a minimum, all significant industrial users shall be sampled and inspected at the frequency established in the approved IPP but in no case less than once per year and maintain adequate records.

   b. Issue or renew 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. In accordance with 40 CFR Part 403.12(i), the permittee shall provide the EPA and MassDEP with an annual report describing the permittee's pretreatment program activities

for the twelve month period ending December 31. The annual report shall be consistent with the format described in **Attachment D** of this permit and shall be submitted no later than **March 1st** of each year.

3. The permittee must obtain approval from EPA prior to making any significant changes to the industrial pretreatment program in accordance with 40 CFR 403.18(c).

4. The permittee must assure that applicable National Categorical Pretreatment Standards are met by all categorical industrial users of the POTW. These standards are published in the Federal Regulations at 40 CFR 405 et. seq.

5. The permittee must modify its pretreatment program to conform to all changes in the Federal Regulations that pertain to the implementation and enforcement of the industrial pretreatment program. The permittee must provide EPA, in writing, within 180 days of this permit's effective date, 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, if applicable, the following areas: (1) Enforcement response plan; (2) revised sewer use ordinances; and (3) slug control evaluations. The permittee will implement these proposed changes pending EPA Region 1's approval under 40 CFR 403.18. This submission is separate and distinct from any local limits analysis submission described above.

H. OUTFALL 011

Permittee shall perform a inspection of outfall 011 (storm water from Westover Air Reserve Base) on an annual basis, and shall record depth of sediment and thickness of oil/grease layer in connection with each inspection. Permittee shall also perform an additional inspection within one week of receipt notice from Westover Air Reserve Base or Westover Metropolitan Airport of a significant oil spill within the drainage area of outfall 011, unless documentation is received demonstrating that impacts to outfall 011 and the oil/water separator system are insignificant.

Permittee shall also perform routine maintenance of outfall 011 as necessary, including cleaning of the oil/water separator the sooner of (i) every five years or (ii) within sixty days of an inspection finding that sediment depth exceeds one half of sump capacity or oil/grease thickness exceeds one inch.

I. 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, including EPA regulations promulgated at 40 CFR Part 503, which prescribe "Standards for the Use or Disposal of Sewage Sludge" pursuant to Section 405(d) of the CWA, 33 U.S.C. § 1345(d).

2. If both state and federal requirements apply to the permittee's sludge use and/or disposal practices, the permittee shall comply with the more stringent of the applicable requirements.

3. The requirements and technical standards of 40 CFR Part 503 apply to the following sludge 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 requirements of 40 CFR Part 503 do not apply to facilities which dispose of sludge in a municipal solid waste landfill. 40 CFR § 503.4. These requirements also do not apply to facilities which do not use or 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 40 CFR. Part 503 requirements including the following elements:

   - General requirements
   - Pollutant limitations
   - Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
   - Management practices
   - Record keeping
   - Monitoring
   - Reporting

   Which of the 40 C.F.R. Part 503 requirements apply to the permittee will depend upon the use or disposal practice followed and upon the quality of material produced by a facility. The EPA Region 1 Guidance document, "EPA Region 1 - NPDES Permit Sludge Compliance Guidance" (November 4, 1999), may be used by the permittee to assist it in determining the applicable requirements.[1]

6. The sludge shall be monitored for pollutant concentrations (all Part 503 methods) and pathogen reduction and vector attraction reduction (land application and surface disposal) 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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1 This guidance document is available upon request from EPA Region 1 and may also be found at: http://www.epa.gov/region1/npdes/permits/generic/sludgeguidance.pdf

less than 290	1/ year
290 to less than1500	1 /quarter
1500 to less than 15000	6 /year
15000 +	1 /month

Sampling of the sewage sludge shall use the procedures detailed in 40 CFR 503.8.

7. Under 40 CFR § 503.9(r), the permittee is a "person who prepares sewage sludge" because it "is … the person who generates sewage sludge during the treatment of domestic sewage in a treatment works …." If the permittee contracts with *another* "person who prepares sewage sludge" under 40 CFR § 503.9(r) – i.e., with "a person who derives a material from sewage sludge" – for use or disposal of the sludge, then compliance with Part 503 requirements is the responsibility of the contractor engaged for that purpose. If the permittee does not engage a "person who prepares sewage sludge," as defined in 40 CFR § 503.9(r), for use or disposal, then the permittee remains responsible to ensure that the applicable requirements in Part 503 are met. 40 CFR §503.7. If the ultimate use or disposal method is land application, the permittee is responsible for providing the person receiving the sludge with notice and necessary information to comply with the requirements of 40 CFR Part 503 Subpart B.

8. The permittee shall submit an annual report containing the information specified in the 40 CFR Part 503 requirements (§ 503.18 (land application), § 503.28 (surface disposal), or § 503.48 (incineration)) by **February 19** (*see also* "EPA Region 1 - NPDES Permit Sludge Compliance Guidance"). Reports shall be submitted to the address contained in the reporting section of the permit. If the permittee engages a contractor or contractors for sludge preparation and ultimate use or disposal, the annual report need contain only the following information:

   - Name and address of contractor(s) responsible for sludge preparation, use or disposal
   - Quantity of sludge (in dry metric tons) from the POTW that is transferred to the sludge contractor(s), and the method(s) by which the contractor will prepare and use or dispose of the sewage sludge.

J. COMPLIANCE SCHEDULE FOR ALUMINUM

The permittee shall attain the monthly average aluminum limit according to the following schedule:

1. Within twelve (12) months of the effective date of the permit, the Permittee shall initiate a study to characterize sources in the system and analyze alternatives for meeting the limit.

2. Within twenty-four (24) months of the effective date of the permit, the Permittee shall complete its study to characterize sources in the system and analyze alternatives for meeting the limit, including establishing a schedule for the implementation of the selected source reduction measures and/or alternative treatment system. The Permittee shall submit a report summarizing the results of its study, the alternative selected, and the established schedule, within fourteen days of this interim compliance date.

3. Within thirty-six (36) months of the effective date of the permit, the Permittee shall implement the selected source reduction measures and shall, if necessary under the selected alternative, complete design of the alternative system for compliance with the aluminum limit.

4. Within forty-eight (48) months of the effective date of the permit, the Permittee shall complete construction of the alternative system for compliance with the aluminum limit, if necessary under the selected alternative.

5. The aluminum limit shall go into effect forty-eight (48) months after the effective date of the permit.

6. No later than fourteen (14) days following each interim date and the final date of compliance, the permitee shall notify EPA in writing of its compliance or noncompliance with these requirement.

K. MONITORING AND REPORTING

1. **For a period of one year from the effective date of the permit**, the permittee may either submit monitoring data and other reports to EPA in hard copy form, or report electronically using NetDMR, a web-based tool that allows permittees to electronically submit discharge monitoring reports (DMRs) and other required reports via a secure internet connection. **Beginning no later than one year after the effective date of the permit**, the permittee shall begin reporting using NetDMR, unless the facility is able to demonstrate a reasonable basis that precludes the use of NetDMR for submitting all DMRs and reports. Specific requirements regarding submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

   a. Submittal of Reports Using NetDMR

      NetDMR is accessed from: http://www.epa.gov/netdmr. Within one year of the effective date of the Permit, the permittee shall begin submitting DMRs and reports required under this permit electronically to EPA using NetDMR, unless the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports ("opt out request").

DMRs shall be submitted electronically to EPA no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA, including the MassDEP Monthly Operations and Maintenance Report, as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees shall continue to send hard copies of reports other than DMRs (including Monthly Operation and Maintenance Reports) to MassDEP until further notice from MassDEP.

b. Submittal of NetDMR Opt Out Requests

Opt out requests must be submitted in writing to EPA for written approval at least sixty (60) days prior to the date a facility would be required under the Permit to begin using NetDMR. This demonstration shall be valid for twelve (12) months from the date of EPA approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to EPA unless the permittee submits a renewed opt out request and such request is approved by EPA. All opt out requests should be sent to the following addresses:

Attn: NetDMR Coordinator
U.S. Environmental Protection Agency, Water Technical Unit
5 Post Office Square, Suite 100 (OES04-4)
Boston, MA 02109-3912

And

Massachusetts Department of Environmental Protection
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

c. Submittal of Reports in Hard Copy Form

Hard copy DMR submittals shall be completed and postmarked no later than the 15th day of the month following the completed reporting period. MassDEP Monthly Operation and Maintenance Reports shall be submitted as an attachment to the DMRs. Signed and dated originals of the DMRs, and all other reports required herein, shall be submitted to the appropriate State addresses and to the EPA address listed below:

U.S. Environmental Protection Agency
Water Technical Unit
5 Post Office Square, Suite 100 (OES04-4)
Boston, MA 02109-3912

The State Agency addresses are:

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

And

Massachusetts Department of Environmental Protection
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

L. STATE PERMIT CONDITIONS

1. This authorization to discharge includes two separate and independent permit authorizations. The two permit authorizations are (i) a federal National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act, 33 U.S.C. §§1251 et seq.; and (ii) an identical state surface water discharge permit issued by the Commissioner of the Massachusetts Department of Environmental Protection (MassDEP) pursuant to the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and 314 C.M.R. 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 CMR 3.19, are hereby incorporated by reference into this state surface water discharge permit.

2. This authorization also incorporates the state water quality certification issued by MassDEP under § 401(a) of the Federal Clean Water Act, 40 C.F.R. 124.53, M.G.L. c. 21, § 27 and 314 CMR 3.07. All of the requirements (if any) contained in MassDEP's water quality certification for the permit are hereby incorporated by reference into this state surface water discharge permit as special conditions pursuant to 314 CMR 3.11.

3. 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 a 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.

Receiving Water	CSO #	Location	Outfall	Outfall location
Connecticut River	3	Power Line ROW S of James St	3	Power Line ROW S of James St
	4	Riverview Pumping Station	4	Riverview Pumping Station
	5	Leslie St Pumping Station	5	Leslie St Pumping Station
	6	Call St Pumping Station	6	Call St Pumping Station
	7.1	Jones Ferry Rd Pumping Station	7	Jones Ferry Road
	7.2	Jones Ferry Rd Pumping Station		
	8	Easement S of Jones Ferry Rd P.S.	8	South of Jones Ferry Road
	9	Paderewski St Pumping Station	9	Paderewski Street
	24.2	Leonard St and West St	24	Exchange Street
	24.3	Exchange St and Bullens St		
	24.4	Exchange St and Depot St		
	24.5	Front and Depot St Area		
Chicopee River	26.1	Bell St and Front St	26	Bell St and Front St
	27.1	Parking Lot, Topors Garage, Front St	27	West End of Riverview Terrace
	27.2	West End of Riverview Terrace		
	29	Chicopee Electric Light West	29	Chicopee Electric Light West
	31.1	Chicopee Electric Light South	31	Off Front Street between Wheatland and Ellerton Streets
	31.3	Easement NW of Front St		
	32.2	Walnut St and Broadway	32A	West Main and Oak Streets
	32.3	Broadway and Belcher St	32B	Main Street West of Deady Memorial Bridge
	32.4	Maple St and Belcher St		
	32.5	Church St and Walnut St	32A	West Main and Oak Streets
	34.1	Grattan St and Hearthstone Terrace	34	Near Rattan Street and Hearthstone Terrace
	34.2	Hearthstone Terrace # 44		
	34.3	Montgomery St @ Deady Memorial Bridge		
	37	East Main St # 227	37	227 East Main Street
	40	Chicopee St, manhole #11	40	Chicopee Street near Rte 116 Bridge
Willimansett Brook	42	Robert's Pond	42	Robert's Pond

EPA - New England

Reassessment of Technically Based Industrial Discharge Limits

Under 40 CFR §122.21(j)(4), all Publicly Owned Treatment Works (POTWs) with approved Industrial Pretreatment Programs (IPPs) shall provide the following information to the Director: a written evaluation of the need to revise local industrial discharge limits under 40 CFR §403.5(c)(1).

Below is a form designed by the U.S. Environmental Protection Agency (EPA - New England) to assist POTWs with approved IPPs in evaluating whether their existing Technically Based Local Limits (TBLLs) need to be recalculated. The form allows the permittee and EPA to evaluate and compare pertinent information used in previous TBLLs calculations against present conditions at the POTW.

Please read direction below before filling out form.

ITEM I.

* In Column (1), list what your POTW's influent flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present influent flow rate. Your current flow rate should be calculated using the POTW's average daily flow rate from the previous 12 months.

* In Column (1) list what your POTW's SIU flow rate was when your existing TBLLs were calculated. In Column (2), list your POTW's present SIU flow rate.

* In Column (1), list what dilution ratio and/or 7Q10 value was used in your old/expired NPDES permit. In Column (2), list what dilution ration and/or 7Q10 value is presently being used in your new/reissued NPDES permit.

  The 7Q10 value is the lowest seven day average flow rate, in the river, over a ten year period. The 7Q10 value and/or dilution ratio used by EPA in your new NPDES permit can be found in your NPDES permit "Fact Sheet."

* In Column (1), list the safety factor, if any, that was used when your existing TBLLs were calculated.

* In Column (1), note how your bio-solids were managed when your existing TBLLs were calculated. In Column (2), note how your POTW is presently disposing of its biosolids and how your POTW will be disposing of its biosolids in the future.

ITEM II.

* List what your existing TBLLs are - as they appear in your current Sewer Use Ordinance (SUO).

ITEM III.

* Identify how your existing TBLLs are allocated out to your industrial community. Some pollutants may be allocated differently than others, if so please explain.

ITEM IV.

* Since your existing TBLLs were calculated, identify the following in detail:

  (1) if your POTW has experienced any upsets, inhibition, interference or pass-through as a result of an industrial discharge.

  (2) if your POTW is presently violating any of its current NPDES permit limitations - include toxicity.

ITEM V.

* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in pounds per day) received in the POTW's influent. Current sampling data is defined as data obtained over the last 24 month period.

  All influent data collected and analyzed must be in accordance with 40 CFR §136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace.

* Based on your existing TBLLs, as presented in Item II., list in Column (2), for each pollutant the Maximum Allowable Headwork Loading (MAHL) values derived from an applicable environmental criteria or standard, e.g. water quality, sludge, NPDES, inhibition, etc. For more information, please see p.,3-28 in EPA's *Guidance Manual on the Development and Implementation of Local Limits Under the Pretreatment Program, 12/87.*

Item VI.

* Using current sampling data, list in Column (1) the average and maximum amount of pollutants (in micrograms per liter) present your POTW's effluent. Current sampling data is defined as data obtained during the last 24 month period. All effluent data collected and analyzed must be in accordance with 40 CFR §136. Sampling data collected should be analyzed using the lowest possible detection method(s), e.g. graphite furnace.

* List in Column (2A) what the Water Quality Standards (WQS) were (in micrograms per liter) when your TBLLs were calculated, please note what hardness value was used at that

time. Hardness should be expressed in milligram per liter of Calcium Carbonate.

List in Column (2B) the current WQSs or "Chronic Gold Book" values for each pollutant multiplied by the dilution ratio used in your new/reissued NPDES permit. For example, with a dilution ratio of 25:1 at a hardness of 25 mg/l - Calcium Carbonate (copper's chronic WQS equals 6.54 ug/l) the chronic NPDES permit limit for copper would equal 156.25 ug/l.

ITEM VII.

* In Column (1), list all pollutants (in micrograms per liter) limited in your new/reissued NPDES permit. In Column (2), list all pollutants limited in your old/expired NPDES permit.

ITEM VIII.

* Using current sampling data, list in Column (1) the average and maximum amount of pollutants in your POTW's biosolids. Current data is defined as data obtained during the last 24 month period. Results are to be expressed as total dry weight.

  All biosolids data collected and analyzed must be in accordance with 40 CFR §136.

  In Column (2A), list current State and/or Federal sludge standards that your facility's biosolids must comply with. Also note how your POTW currently manages the disposal of its biosolids. If your POTW is planing on managing its biosolids differently, list in Column (2B) what your new biosolids criteria will be and method of disposal.

In general, please be sure the units reported are correct and all pertinent information is included in your evaluation. If you have any questions, please contact your pretreatment representative at EPA - New England.

REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS (TBLLs)

POTW Name & Address : _____

NPDES PERMIT # : _____

Date EPA approved current TBLLs : _____

Date EPA approved current Sewer Use Ordinance : _____

ITEM I.

In Column (1) list the conditions that existed when your current TBLLs were calculated. In Column (2), list current conditions or expected conditions at your POTW.		
	Column (1) EXISTING TBLLs	Column (2) PRESENT CONDITIONS
POTW Flow (MGD)		
Dilution Ratio or 7Q10 (from NPDES Permit)		
SIU Flow (MGD)		
Safety Factor		N/A
Biosolids Disposal Method(s)		

ITEM II.

EXISTING TBLLs			
POLLUTANT	NUMERICAL LIMIT (mg/l) or (lb/day)	POLLUTANT	NUMERICAL LIMIT (mg/l) or (lb/day)

ITEM III.

Note how your existing TBLLs, listed in Item II., are allocated to your Significant Industrial Users (SIUs), i.e. uniform concentration, contributory flow, mass proportioning, other. Please specify by circling.

ITEM IV.

Has your POTW experienced any upsets, inhibition, interference or pass-through from industrial sources since your existing TBLLs were calculated?

If yes, explain.

_____

_____

Has your POTW violated any of its NPDES permit limits and/or toxicity test requirements?

If yes, explain. _____

_____

ITEM VII.

In Column (1), identify all pollutants limited in your new/reissued NPDES permit. In Column (2), identify all pollutants that were limited in your old/expired NPDES permit.

Column (1) NEW PERMIT		Column (2) OLD PERMIT	
Pollutants	Limitations (ug/l)	Pollutants	Limitations (ug/l)

ITEM VIII.

Using current POTW biosolids data, fill in Column (1). In Column (2A), list the biosolids criteria that was used at the time your existing TBLLs were calculated. If your POTW is planing on managing its biosolids differently, list in Column (2B) what your new biosolids criteria would be and method of disposal.

Pollutant	Column (1) Biosolids Data Analyses Average (mg/kg)	Columns (2A) Biosolids Criteria From TBLLs (mg/kg)	(2B) New (mg/kg)
Arsenic			
Cadmium			
Chromium			
Copper			
Cyanide			
Lead			
Mercury			
Nickel			
Silver			
Zinc			
Molybdenum			
Selenium			
Other (List)			