

**MODIFICATION OF 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),

Boston Water and Sewer Commission

is authorized to discharge from:

26 Combined Sewer Overflows (CSOs) listed in Attachment A

which discharge to receiving waters named: **Boston Inner Harbor, the Chelsea River, Little Mystic Channel, Mystic River, Fort Point Channel and Reserved Channel, Charles River, and Muddy River (HUC 01090001)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit issued on March 28, 2003, and the modification as set forth herein in Addendum A.

The Massachusetts Water Resources Authority (MWRA) is a Co-Permittee in this modification for effluent limitations, monitoring requirements and other conditions for MWR215 which are set forth in this permit modification (See Addendum A). This modification adds Outfall MWR215 as an internal outfall to the currently authorized CSO, BOS070. The address of the responsible party is:

**Massachusetts Water Resources Authority
Charlestown Navy Yard
100 First Avenue
Boston, MA 02129**

This modifies the permit issued on March 28, 2003.

This permit modification shall become effective (see**)

This permit modification and the underlying permit will expire at midnight on May 27, 2008.

This permit modification consists of 5 pages in Addendum A, and its attachments: Attachment A (Whole Effluent Toxicity test Protocol), Attachment B (Recommended Plan Volume and Discharge Frequency) and Part II including General Conditions and Definitions.

Signed this _____ day of _____

Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

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

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

Addendum A

Effluent Limitations and Conditions for Outfall MWR215
Union Park CSO Treatment Facility

DRAFT

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. COMBINED SEWER OVERFLOWS (CSO) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:					
During the period beginning with the effective date of the permit modification and lasting through the expiration of the permit modification, the Co-Permittee is authorized to discharge from outfall MWR215.					
a. the discharge will be limited and monitored by the Co-Permittee as specified below. Samples will be collected prior to commingling with other wastestreams downstream of the Union Park Pumping Facility.					
EFFLUENT CHARACTERISTIC	UNITS	DISCHARGE LIMITATION		MONITORING REQUIREMENT	
		DISCHARGE EVENT AVERAGE	DISCHARGE EVENT MAXIMUM	MEASUREMENT FREQUENCY ¹²	SAMPLE TYPE
Rainfall/Precipitation ¹	inches	REPORT	REPORT	Per Discharge Event	Total
Flow	MG	REPORT	REPORT	Continuous	See Footnote ²
Total Suspended Solids (TSS) ³	mg/l	REPORT	REPORT	4/Year	See Footnote ⁴
Biochemical Oxygen Demand (BOD ₅) ³	mg/l	REPORT	REPORT	4/Year	See Footnote ⁴
Total Residual Chlorine (TRC) ⁷	mg/l	0.1	0.25 (maximum hourly)	4/Year	Grab ^{5,6}
Fecal Coliform Bacteria	colonies/100 ml	200	400	4/Year	Grab ^{4,5,6}
Enterococci	colonies/100 ml	REPORT	REPORT	4/Year	Grab ^{4,5,6}
pH	Standard Units (SU)	See Part I.1.b		4/Year	Grab ⁵
LC50 ^{8,9}	%	***	Report	2/Year ¹⁰	Composite ¹¹

Footnotes:

1. Report the National Weather Service data for Boston and, if available, report the data from each rain gauge at or near the CSO facility or their service area per discharge event. Report intensity, duration and volume of each rain event.
2. Report the peak flow rate, duration and volume for each discharge event. Report the duration and volume of flow that bypasses treatment during each discharge event.
3. The Co-Permittee will sample four discharge events per year, as follows: a grab sample will be collected within the first two hours and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours. All samples collected will then be composited as a time-weighted composites.
4. After sufficient data has been collected to characterize the discharge variability at the facility, the Co-Permittee may submit an alternative CSO monitoring plan to EPA and MassDEP. Any alternative plan must be capable of demonstrating compliance with the requirements set forth in Part I.1., and must provide data representative of all CSO discharges. If approved by EPA and MassDEP, the Co-Permittee will implement the alternative plan in place of the CSO monitoring described in Part I.1.
5. The Co-Permittee will sample four discharge events per year, as follows: a grab sample will be collected within the first two hours of the start of the discharge, and every hour thereafter for the duration of the overflow.
6. The TRC samples must be collected concurrent with the Fecal Coliform Bacteria and Enterococci samples.
7. The Co-Permittee must maintain a record of process control TRC levels before dechlorination, using the TRC analyzer (measured continuously). If the TRC analyzer becomes unreliable during a treatment event, the Co-Permittee shall note it in the record; provide explanation of the problem and the steps taken to return the analyzer to proper operation.
8. Perform acute toxicity testing, biannually, using Inland Silverside (*Menidia beryllina*) and the Mysid Shrimp (*Americamysis bahia*) in accordance with test procedures and protocols specified in Attachment A. Samples will be collected during the first flush or as a composite over the duration of the overflow, not to exceed twenty-four (24) hours. These samples are time-weighted composites.
9. If the discharge fails an LC₅₀=100% toxicity test, the Co-Permittee will perform a second acute toxicity test within 30 days, or if weather does not permit, as soon as possible. If the discharge fails the second LC₅₀=100% toxicity test, the Co-Permittee will investigate the source of toxicity and submit a toxicity assessment and reduction plan of the discharge based on representative data, to EPA and MassDEP, within 6 (six) months of the second failed test. Within 90 days of EPA and MassDEP approval of this plan, the Co-Permittee will initiate the plan and begin follow-up biomonitoring of the effluent in accordance with the approved toxicity reduction plan. The toxicity reduction plan will not be complete until the toxicity has been eliminated from the effluent. Also, the results of the assessment study, and the results of the LC₅₀ testing requirements set forth in this permit, will serve to indicate whether the existing limitations are sufficient, or whether more stringent limitations or other treatment technologies are required.

10. Toxicity reports will be submitted one month following the test procedure, and by the last day of the month. As an example, if a March toxicity test is performed, the test result will be submitted by April 30th.
11. The Co-Permittee will sample two discharge events per year, as follows: a grab sample will be collected within the first two hours, and every hour thereafter for the duration of the overflow, not to exceed twenty-four (24) hours.
12. Monthly Discharge Monitoring Reports (DMRs) shall be sent to the Co-Permittee. Although the Co-Permittee is required to conduct quarterly sampling, the Co-Permittee is required to submit a monthly DMR. In a month when no discharge occurs, the Co-Permittee shall enter the no discharge code on the DMR, NODI=9.

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 discharge shall not be less than 6.5 nor greater than 8.5 at any time and not more than 0.2 units outside the normally occurring range. There will be no change from background conditions that would impair any use assigned to this class, unless the cause of the excursion from criteria is due solely to naturally occurring background conditions.
- d. During wet weather, the Co-Permittee is authorized to discharge storm water/wastewater from MWR215, subject to the following effluent limitations:
 - (i) The discharges will 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. EPA and MassDEP have made a determination that BPT, BCT and BAT for combined sewer overflows (CSOs) include the implementation of Nine Minimum Controls (NMC) specified below.
 1. Proper operation and 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 CSO impacts.
 9. Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

Because this is a new treatment facility, the nine minimum control (NMC) programs previously developed by the permittee and Co-Permittee do not include specific activities

relating to this treatment facility. Accordingly, **within 120 days after five (5) activations of at least hour (4) hours each, following of the effective date of this permit modification** the Co-Permittee will evaluate and document NMCs number 1 (Proper Operation and Maintenance of the Treatment Facility and Appurtenances) and number 8 (Public Notification)

- (ii.) The discharge from MWR215 shall be consistent with the Recommended Plan.
- (iii.) All bypasses of the treatment system must be consistent with Part II.B.4 of this permit.
- (iv.) Any bypass of the treatment system must be reported to EPA and the MassDEP within twenty four-(24) hours in accordance with the reporting requirements for plant bypass (Paragraph D.1.e. of Part II of this permit). A written report shall be submitted with five (5) of the time the Co-Permittee becomes aware of the circumstances (Paragraph D.1.e. of Part II of this permit). The written report shall include:
 - 1. The duration and volume of flow that bypasses treatment for each discharge event,
 - 2. National Weather Service precipitation data from the nearest gage where precipitation is available at daily (twenty four (24) hour) intervals and the nearest gage where precipitation is available at one-hour intervals and;
 - 3. Hourly water surface levels at the facility's influent channel or in the Malden Street Diversion Structure A.
 - 4. If the cause of the bypass is due to any cause, other than the surface water level rise within 1 foot of the BWSC's Target Flood Control Elevation, the Co-Permittee is not required to provide surface water levels, but must provide a written explanation.
- e. The Co-Permittee may consolidate CSO reports for MWR215 and the CSOs authorized under MA0103284 according to the schedule in the MWRA permit, MA0103284, Part I.16.g.(iii).
- f. Part II including the General Conditions and Definitions required this permit apply to Outfall MWR215.