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"),

Massachusetts Port Authority (Massport) and the Co-Permittees listed in Attachment B and located at Logan International Airport

are authorized to discharge from a facility located at

Logan International Airport
One Harborside Drive
East Boston, Massachusetts 02128-2909

to receiving waters named

Boston Harbor, Boston Inner Harbor and Winthrop Bay (Boston Harbor Basin)

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the Permit issued on August 24, 2023, except as modified with new language in **red bold** in Part I.C.6.

This permit modification only proposes to add the provisions in Part I.C.6 of the Permit for which the Permittee is solely responsible. Co-Permittees are responsible for portions of the Stormwater Pollution Prevention Plan (SWPPP) in Part I.C. for stormwater discharges from industrial activities which they conduct. The Co-Permittee Swissport Fueling/BOSFuel is responsible for operating the treatment system associated with the centralized fuel farm. All Co-Permittee tenants that deice aircraft are responsible for complying with Part I.C.2 of this Permit pertaining to glycol reduction.

This permit modification shall become effective on the first day of the calendar month immediately following 30 days after signature.[1]

This modified permit expires at midnight, October 31, 2028.

This modified permit is issued pursuant to 40 CFR § 124.5 and revises and supersedes the relevant portions of the permit issued on August 24, 2023.

[1] Pursuant to 40 Code of Federal Regulations (CFR) § 124.15(b)(3), if no comments requesting a change to the Draft Permit Modification are received, the permit modification will become effective upon the date of signature. Procedures for appealing EPA's Final Permit decision may be found at 40 CFR § 124.19.

This permit consists of **Part I, Attachment A** (Marine Acute Toxicity Test Protocol, July 2012, 10 pages), **Attachment B** (List of Co-Permittees), and **Part II** (NPDES Part II Standard Conditions, April 2018, 21 pages).

Signed this day of

_____

Ken Moraff, Director
Water Division
Environmental Protection Agency
Region 1
Boston, MA

Outfall Designations

Below is a summary of where tables of the effluent limits and monitoring requirements can be found by Permit Part and page number. For reporting purposes, each numbered outfall was given letter designations that apply to different sampling conditions as follows: Wet and/or dry weather (A), deicing episodes (B), treated stormwater from the fuel storage and distribution system (D) and (E). Designations (D) and (E) represent treated discharges which are combined with other stormwater flows within the storm drainage system and eventually discharge to Outfall 001.

Outfall Number (Massport designation)	Wet and/or dry weather flows	Deicing Episode	Above-Ground Storage Tanks (ASTs), Fuel Loading Rack, and Set-up Tank Areas
Outfall 001 (North Outfall)	**01A** (I.A.1, page 4)	**01B** (I.A.3, page 15)	**01D & 01E** (I.A.4, page 18)
Outfall 002 (West Outfall)	**02A** (I.A.1, page 4)	**02B** (I.A.3, page 15)	------
Outfall 003 (Porter Street Outfall)	**03A** (I.A.2, page 11)	**03B** (I.A.7, page 24)	------
Outfall 004 (Maverick Street Outfall)	**04A** (I.A.1, page 4)	------	------
Outfall 005 (Northwest Outfall)	**05A** (I.A.5, page 20)	------	------
Outfall 006 (Perimeter Outfall A21)	**06A** (I.A.6, page 22)	**06B** (I.A.7, page 24)	------
Outfall 007 (Perimeter Outfall A33)	**07A** (I.A.6, page 22)	**07B** (I.A.7, page 24)	------
Outfall 008 (Perimeter Outfall A8)	**08A** (I.A.6, page 22)	**08B** (I.A.7, page 24)	------

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through the expiration date, Massport ("the Permittee") and Co-Permittees are authorized to discharge stormwater associated with industrial activity from vehicle maintenance areas, equipment cleaning areas and deicing activities, and groundwater infiltration through Outfall Serial Number 01A (North) to Winthrop Bay, and 02A (West) and 04A (Maverick Street) to Boston Inner Harbor. Such discharges shall be limited as specified below and monitored by Massport as specified below:

Effluent Characteristic	**Effluent Limitation**		**Monitoring Requirements[1,2,3]**	
	Average Monthly	**Maximum Daily**	**Measurement Frequency[4]**	**Sample Type[5]**
Effluent Flow[6]	Report MGD	Report MGD	1/month	Estimate
Total Suspended Solids (TSS)	Report mg/L	100 mg/L	1/month	Grab
pH[7]	6.0 - 8.5 S.U.		1/month	Grab
Oil and Grease [8]	---	15 mg/l	1/month	Grab
Fecal Coliform[9], Outfall 01A Outfalls 02A and 04A	88 MPN/100 ml Report MPN/100 ml	260 MPN/100 ml Report MPN/100 ml	1/month 1/month	Grab Grab
Enterococcus[9]	35 cfu/100 ml	130 cfu/100 ml	1/month	Grab
Benzene, µg/l[10] (Outfall 01A only)	Report µg/L	Report µg/L	1/month	Grab

Effluent Characteristic	**Effluent Limitation**		**Monitoring Requirements[1,2,3]**	
	Average Monthly	**Maximum Daily**	**Measurement Frequency[4]**	**Sample Type[5]**
Surfactants (Outfalls 01A and 02A)	Report mg/L	Report mg/L	1/year	Grab
Total Ammonia Nitrogen, as mg/L of N	Report mg/L	Report mg/L	1/quarter	Grab
Polycyclic Aromatic Hydrocarbons (PAHs)[10]	----	Report Total	1/quarter	Grab
1) Benzo(a)anthracene	----	Report µg/L	1/quarter	Grab
2) Benzo(a)pyrene	----	Report µg/L	1/quarter	Grab
3) Benzo(b)fluoranthene	----	Report µg/L	1/quarter	Grab
4) Benzo(k)fluoranthene	----	Report µg/L	1/quarter	Grab
5) Chrysene	----	Report µg/L	1/quarter	Grab
6) Dibenzo(a,h)anthracene	----	Report µg/L	1/quarter	Grab
7) Indeno(1,2,3-cd)pyrene	----	Report µg/L	1/quarter	Grab
8) Naphthalene	----	Report µg/L	1/quarter	Grab
Perfluorohexanesulfonic acid (PFHxS)[11,12]	----	Report ng/L	1/quarter	Grab
Perfluoroheptanoic acid (PFHpA)[11,12]	----	Report ng/L	1/quarter	Grab
Perfluorononanoic acid (PFNA)[11,12]	----	Report ng/L	1/quarter	Grab

Effluent Characteristic	**Effluent Limitation**		**Monitoring Requirements[1,2,3]**	
	Average Monthly	**Maximum Daily**	**Measurement Frequency[4]**	**Sample Type[5]**
Perfluorooctanesulfonic acid (PFOS)[11,12]	----	Report ng/L	1/quarter	Grab
Perfluorooctanoic acid (PFOA)[11,12]	----	Report ng/L	1/quarter	Grab
Perfluorodecanoic acid (PFDA)[11,12]	----	Report ng/L	1/quarter	Grab
Whole Effluent Toxicity (WET) Testing[5,13,14]				
LC_{50}	---	Report %	1/quarter	Composite
NOAEL	---	Report %	1/quarter	Composite
pH	---	Report S.U.	1/quarter	Composite
Total Solids	---	Report mg/L	1/quarter	Composite
Total Suspended Solids	---	Report mg/L	1/quarter	Composite
Ammonia	---	Report mg/L	1/quarter	Composite
Salinity	---	Report ppt	1/quarter	Composite
Total Organic Carbon	---	Report mg/L	1/quarter	Composite
Total Cadmium	---	Report mg/L	1/quarter	Composite
Total Copper	---	Report mg/L	1/quarter	Composite
Total Nickel	---	Report mg/L	1/quarter	Composite

Effluent Characteristic	**Effluent Limitation**		**Monitoring Requirements[1,2,3]**	
	Average Monthly	**Maximum Daily**	**Measurement Frequency[4]**	**Sample Type[5]**
Total Lead	---	Report mg/L	1/quarter	Composite
Total Zinc	---	Report mg/L	1/quarter	Composite

Footnotes:

1. Effluent samples shall yield data representative of the discharge. A routine sampling program shall be developed in which samples are taken at the discharge point to the receiving water after treatment in the oil/water separator (for Outfalls 01A and 02A), prior to co-mingling with any other wastestream. On its Discharge Monitoring Report (DMR), the Permittee shall note any precipitation events of greater than 0.1 inches in magnitude or equivalent snowmelt that occurred during the 72 hours prior to sampling. Changes in sampling location must be approved in writing by the Environmental Protection Agency Region 1 (EPA) and the State. The Permittee shall report the results to EPA and the State of any additional testing above that required herein, if testing is in accordance with 40 C.F.R. § 136.

2. In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

3. When a parameter is not detected above the ML, the Permittee must report the data qualifier signifying less than the ML for that parameter (e.g., < 50 µg/L, if the ML for a parameter is 50 µg/L).

4. Measurement frequency of 1/month is defined as the sampling of one discharge event in each calendar month. Measurement frequency of 1/quarter is defined as the sampling of one discharge event in each calendar quarter. Measurement frequency of 1/year is defined as the sampling of one discharge event during one calendar year. Calendar quarters are defined as January through March, inclusive, April through June, inclusive, July through September, inclusive and October through December, inclusive. If no sample is collected during the measurement frequencies defined above, the Permittee must report an appropriate No Data Indicator Code (e.g., "C" for "No Discharge").

5. The composite sample for the Whole Effluent Toxicity (WET) testing shall consist of a minimum of eight equally weighted grab samples collected at fifteen-minute intervals or greater during a normal discharge and at the outfall location.

6. The effluent flow rate for Outfalls 01A, 02A, and 04A shall be estimated by the most recent hydraulic flow model developed by Massport or other acceptable method as approved in writing by EPA. Massport shall report the average monthly and maximum daily flow rate for each of the three outfalls, in millions of gallons per day (MGD).

7. The pH shall be within the specified range at all times. The minimum and maximum pH sample measurement values for the month shall be reported in standard units (S.U.). Also see Part I.C.5.

8. The Permittee shall use EPA Method 1664A for oil & grease (O&G) analysis, which has a minimum level (ML) of 5 mg/l, where the ML is the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for a pollutant or pollutant parameter, representative of the lowest concentration at which a pollutant or pollutant parameter can be measured with a known level of confidence.

9. Fecal coliform shall be conducted year-round. For Outfalls 002A and 004A, fecal coliform shall be a monitor only requirement, with no limit. For Outfall 01A, fecal coliform discharges shall not exceed a monthly geometric mean of 88 Most Probable Number (MPN) per 100 ml, nor shall more than 10% of the samples exceed 260 MPN per 100 ml as a daily maximum. Enterococcus monitoring shall be conducted year-round. Enterococcus shall not exceed a monthly geometric mean of 35 colony forming units (cfu) per 100 ml, nor shall more than 10% of samples collected within a 30-day interval exceed 130 cfu per 100 ml as a daily maximum.

10. The ML for benzene analysis shall be no greater than 2 µg/l. Polycyclic Aromatic Hydrocarbons (PAH) shall be monitored once per calendar quarter and the results shall be submitted with the DMR for the last month of the quarter. The ML for PAHs shall be no greater than the following: 0.1 µg/L for each Group I PAH (Items 1 to 7 on limits table above) and 5 µg/L for naphthalene. The ML is not the minimum level of detection, but rather the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for an analyte, representative of the lowest concentration at which an analyte can be measured with a known level of confidence. Analysis must be completed using an EPA approved method in 40 C.F.R. §136, Table IC – Non-Pesticide Organic Compounds. The detection limit (DL) for each analyte must be recorded. The DL is the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions (i.e., the level above which an actual value is reported for an analyte, and the level below which an analyte is reported as non-detect). When an analyte is not detected above the Practical Quantification Level (PQL), the Permittee must report using the data qualifier signifying less than the DL for that analyte (i.e., <0.1 µg/L, if the PQL for an analyte is 0.1 µg/L).

11. This reporting requirement for the listed PFAS parameters takes effect in the first full calendar quarter following 6 months after the effective date of the permit.

12. After one year of monitoring, if all samples are non-detect for all six PFAS compounds, using EPA's multi-lab validated method for wastewater, the Permittee may request to remove the requirement for PFAS monitoring. See Special Conditions in Part I.C.4.

13. The Permittee shall conduct acute whole effluent toxicity tests (WET) four times per year for each of the Outfalls 01A, 02A, and 04A in accordance with test procedures and protocols specified in Attachment A of this permit. LC50 is defined in Part II.E. of this permit. The Permittee shall test the Mysid Shrimp, Americamysis bahia, and the Inland Silverside, Menidia beryllina. Toxicity test samples shall be collected in February, June, September, and December as shown in the table below. Sampling for February and December shall be conducted during deicing applications for Outfalls 001 and 002 only, or within 12 hours after deicing applications have occurred in the respective drainage areas of these outfalls. The test results and complete report for each toxicity test shall be submitted as an attachment to the March, July, October, and January DMRs, which are due by April 15, August 15, November 15, and February 15, respectively. The tests must be performed in accordance with test procedures and protocols specified in Attachment A of this Permit. If the Permittee is unable to conduct the deicing sampling in February or December, it shall conduct such sampling during the following month.

WET Testing Months	Submit Results With:	Test Species	Acute Endpoints
February (during deicing)	March DMR	Mysid Shrimp, *Americamysis bahia* Inland Silverside, *Menidia beryllina*	Report NOAEL & Report LC_{50}
June	July DMR		
September	October DMR		
December (during deicing)	January DMR		

14. For Part I.A.1., Whole Effluent Toxicity Testing, the Permittee shall conduct the analyses specified in Attachment A, Part VI. CHEMICAL ANALYSIS for the effluent sample. If toxicity test(s) using the 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. Minimum levels and test methods are specified in Attachment A, Part VI. CHEMICAL ANALYSIS.

15. For Part I.A.1., Ambient Characteristic, the Permittee shall conduct the analyses specified in Attachment A, Part VI. CHEMICAL ANALYSIS for the receiving water sample collected as part of the WET testing requirements. Such samples shall be taken from the receiving water at a point immediately upstream of the permitted discharge's zone of influence at a reasonably accessible location, as specified in Attachment A, Minimum levels and test methods are specified in Attachment A, Part VI. CHEMICAL ANALYSIS.

16. A pH and temperature measurement shall be taken of each receiving water sample at the time of collection and the results reported on the appropriate DMR. These pH and temperature measurements are independent from any pH and temperature measurements required by the WET testing protocols.

2. During the period beginning on the effective date and lasting through the expiration date, Massport and Co-Permittees are authorized to discharge stormwater associated with industrial activity from vehicle maintenance areas, equipment cleaning areas and groundwater infiltration from outfall 03A (Porter Street Outfall) to Boston Inner Harbor. Such discharges shall be limited and monitored by Massport as specified below:

Effluent Characteristic	**Effluent Limitation**		**Monitoring Requirements[1,2,3]**	
	Average Monthly	**Maximum Daily**	**Measurement Frequency[4]**	**Sample Type**
Effluent Flow[5]	Report MGD	Report MGD	1/month	Estimate
Total Suspended Solids (TSS)	Report mg/L	100 mg/L	1/month	Grab
pH[6]	6.0 - 8.5 S.U.		1/month	Grab
Oil and Grease[7]	---	15 mg/L	1/month	Grab
Fecal Coliform[8]	Report MPN/100 ml	Report MPN/100 ml	1/month	Grab
Enterococcus[8]	35 cfu/100 ml	130 cfu/100 ml	1/month	Grab
Total Ammonia Nitrogen, as mg/L of N	Report mg/L	Report mg/L	1/quarter	Grab
Polycyclic Aromatic Hydrocarbons (PAHs)[9]	----	Report Total µg/L	1/quarter	Grab
1) Benzo(a)anthracene	----	Report µg/L	1/quarter	Grab
2) Benzo(a)pyrene	----	Report µg/L	1/quarter	Grab
3) Benzo(b)fluoranthene	----	Report µg/L	1/quarter	Grab
4) Benzo(k)fluoranthene	----	Report µg/L	1/quarter	Grab

Effluent Characteristic	Effluent Limitation		Monitoring Requirements[1,2,3]	
	Average Monthly	Maximum Daily	Measurement Frequency[4]	Sample Type
5) Chrysene	----	Report µg/L	1/quarter	Grab
6) Dibenzo(a,h)anthracene	----	Report µg/L	1/quarter	Grab
7) Indeno(1,2,3-cd)pyrene	----	Report µg/L	1/quarter	Grab
8) Naphthalene	----	Report µg/L	1/quarter	Grab
Perfluorohexanesulfonic acid (PFHxS)[10,11]	----	Report ng/L	1/quarter	Grab
Perfluoroheptanoic acid (PFHpA)[10,11]	----	Report ng/L	1/quarter	Grab
Perfluorononanoic acid (PFNA)[10,11]	----	Report ng/L	1/quarter	Grab
Perfluorooctanesulfonic acid (PFOS)[10,11]	----	Report ng/L	1/quarter	Grab
Perfluorooctanoic acid (PFOA)[10,11]	----	Report ng/L	1/quarter	Grab
Perfluorodecanoic acid (PFDA)[10,11]	----	Report ng/L	1/quarter	Grab

Footnotes:

1. Effluent samples shall yield data representative of the discharge. A routine sampling program shall be developed in which samples are taken at the discharge point to the receiving water and prior to co-mingling with any other wastestream. Changes in sampling location must be approved in writing by the Environmental Protection Agency Region 1 (EPA) and the State. The Permittee shall report the results to EPA and the State of any additional testing above that required herein, if testing is done in accordance with 40 C.F.R. § 136. Outfall 03A samples shall be comprised of two equally weighted samples taken upstream of

Outfall 03A that are representative of the discharge and at least one of these shall be from the airside of the property, which is comprised of runways, taxiways and service roads.

2. In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

3. When a parameter is not detected above the ML, the Permittee must report the data qualifier signifying less than the ML for that parameter (e.g., < 50 µg/L, if the ML for a parameter is 50 µg/L).

4. Measurement frequency of 1/month is defined as the sampling of one discharge event in each calendar month. Measurement frequency of 1/quarter is defined as the sampling of one discharge event in each calendar quarter. Measurement frequency of 1/year is defined as the sampling of one discharge event during one calendar year. Calendar quarters are defined as January through March, inclusive, April through June, inclusive, July through September, inclusive and October through December, inclusive. If no sample is collected during the measurement frequencies defined above, the Permittee must report an appropriate No Data Indicator Code (e.g., "C" for "No Discharge").

5. The effluent flow rate for Outfall 03A shall be estimated by the most recent hydraulic flow model developed by Massport or other acceptable method as approved in writing by EPA. Massport shall report the average monthly and maximum daily flow rate for the outfall, in millions of gallons per day (MGD).

6. The pH shall be within the specified range at all times. The minimum and maximum pH sample measurement values for the month shall be reported in standard units (S.U.). Also see Part I.C.5.

7. The Permittee shall use EPA Method 1664A for oil & grease (O&G) analysis, which has a minimum level (ML) of 5 mg/l, where the ML is the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for a pollutant or pollutant parameter, representative of the lowest concentration at which a pollutant or pollutant parameter can be measured with a known level of confidence.

8. Fecal coliform and Enterococcus monitoring shall be conducted year-round. Enterococcus shall not exceed a monthly geometric mean of 35 cfu per 100 ml, nor shall more than 10% of samples collected within a 30-day interval exceed 130 cfu per 100 ml as a daily maximum. Fecal coliform shall be monitored only with no limit.

9. See footnote 10 in Part I.A.1 regarding PAH analysis requirements. Sampling for PAH compounds shall be conducted once during each calendar quarter of the year.

10. The reporting requirement for the listed PFAS parameters takes effect in the first full calendar quarter following 6 months after the effective date of the permit.

11. After one year of monitoring, if all samples are non-detect for all six PFAS compounds, using EPA's multi-lab validated method for wastewater, the Permittee may request to remove the requirement for PFAS monitoring. See Special Conditions in Part I.C.4.

DEICING EPISODES

3. During the period beginning on the effective date and lasting through the expiration date, Massport and Co-Permittees are authorized to discharge stormwater associated with industrial activity from aircraft and pavement/runway deicing activities from outfalls 01B (North) and 02B (West). Such discharges shall be monitored by Massport as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements[1,2,3]	
	Average Monthly	Maximum Daily	Measurement Frequency[4]	Sample Type
Effluent Flow, MGD[5]	-----	Report, MGD	1/month (October through April only)	Estimate
Propylene Glycol	-----	Report mg/L	1/month (Oct-Apr)	Grab
Biochemical Oxygen Demand, 5 day (BOD_5)[6]	-----	Report mg/L	1/month (Oct-Apr)	Grab
	-----	Report lbs/day	1/month (Oct-Apr)	Calculated
Chemical Oxygen Demand (COD)[6]	-----	Report mg/L	1/month (Oct-Apr)	Grab
	-----	Report lbs/day	1/month (Oct-Apr)	Calculated
Dissolved Oxygen	-----	Report mg/L	1/month (Oct-Apr)	Grab
Tolyltriazoles[8], Total	-----	Report µg/L	3/Deicing Season[7]	Grab
Nonylphenol[8], Total	-----	Report µg/L	1/Deicing Season[7]	Grab
Perfluorohexanesulfonic acid (PFHxS)[9,10]	----	Report ng/L	1/quarter	Grab
Perfluoroheptanoic acid (PFHpA)[9,10]	----	Report ng/L	1/quarter	Grab
Perfluorononanoic acid (PFNA)[9,10]				

Effluent Characteristic	Discharge Limitations		Monitoring Requirements[1,2,3]	
	Average Monthly	Maximum Daily	Measurement Frequency[4]	Sample Type
	----	Report ng/L	1/quarter	Grab
Perfluorooctanesulfonic acid (PFOS)[9,10]	----	Report ng/L	1/quarter	Grab
Perfluorooctanoic acid (PFOA)[9,10]	----	Report ng/L	1/quarter	Grab
Perfluorodecanoic acid (PFDA)[9,10]	----	Report ng/L	1/quarter	Grab

Footnotes:

1. Sampling taken in compliance with the monitoring requirements specified above shall be taken at a point prior to discharge from Outfalls 01B and 02B. Sampling shall be conducted during or soon after deicing has occurred in the respective drainage areas of these outfalls. On its DMR, the Permittee shall note any precipitation events of greater than 0.1 inches in magnitude or equivalent snowmelt that occurred during the 72 hours prior to sampling. Any change in sampling location must be reviewed and approved in writing by EPA and MassDEP. All samples shall be tested using the analytical methods found in 40 C.F.R.§136, or alternative methods approved by EPA in accordance with the procedures in 40 C.F.R. §136. Any changes in sampling location must be approved in writing by EPA and MassDEP.

2. In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is “sufficiently sensitive” when: 1) The ML is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O for the measured pollutant or pollutant parameter. The term “minimum level” refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest

acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

3. When a parameter is not detected above the ML, the Permittee must report the data qualifier signifying less than the ML for that parameter (e.g., < 50 µg/L, if the ML for a parameter is 50 µg/L).

4. Measurement frequency of 1/month is defined as the sampling of one discharge event in each calendar month. If no sample is collected during the measurement frequencies defined above, the Permittee must report an appropriate No Data Indicator Code.

5. The effluent flow rate for Outfalls 01B and 02B shall be estimated by the most recent hydraulic flow model developed by Massport or other acceptable method as approved in writing by EPA. Massport shall report the average monthly and maximum daily flow rate for each of the two outfalls, in millions of gallons per day (MGD).

6. Massport will use the monthly sampling requirement during the deicing season for BOD5 and COD as well as any additional sampling to ensure that the extrapolated loading estimates used in the Deicer Discharge Reduction Plan (DDRP) in Part I.C.2 are reliably accurate and statistically significant. To calculate monthly loadings, Massport shall use the methodology from the technical development document that accompanied the airport Effluent Limitation Guideline document in 2012 and found at: https://www.epa.gov/sites/production/files/2015-06/documents/airport-deicing-tdd-final-2012.pdf.

7. The deicing season is defined as October through April. Sampling for nonylphenol and tolyltriazole shall be conducted three times during the deicing season and must be conducted on the same day as sampling for other parameters for Outfalls 01B and 02B.

8. For nonylphenol, the Permittee shall use ASTM Standard Test Method D 7065 (Determination of Nonylphenol, Bisphenol A, p-tert-Octylphenol, Nonylphenol Monoethoxylate and Nonylphenol Diethoxylate in Environmental Waters by Gas Chromatography Mass Spectrometry) or submit an alternative method to EPA for approval. For tolytriazole, the Permittee shall use a test method capable of achieving a minimum level (ML) of < 1 mg/L tolyltriazole. Tolyltriazoles may be reported as sum of the predominant isomers which are found in the glycol formulations used at the airport.

9. This reporting requirement for the listed PFAS parameters takes effect in the first full calendar quarter following 6 months after the effective date of the permit.

10. After four sampling events, if all samples are non-detect for all six PFAS compounds, using EPA's multi-lab validated method for wastewater, the Permittee may request to remove the requirement for PFAS monitoring. See Special Conditions in Part I.C.4.

INTERNAL OUTFALLS ASSOCIATED WITH FUEL FARM AND OUTFALL 001 STORMWATER DRAINAGE SYSTEM

4. During the period beginning on the effective date and lasting through the expiration date, Massport and the Co-Permittee that operates the centralized fuel farm are authorized to discharge stormwater associated with industrial activity from the aboveground storage tank (AST) berms, other bermed areas in the fuel farm area and fuel loading rack area, and from hydrant vaults and pits stored in the Set-up Tank, from internal outfalls 01D and 01E. These treated stormwater flows ultimately discharge at Outfall 01A and shall be monitored by Massport or the Co-Permittee that operates the centralized fuel farm, as specified below:

Effluent Characteristic	**Discharge Limitations**		**Monitoring Requirements**	
	Total Monthly	**Maximum Daily**	**Measurement Frequency**	**Sample Type[1]**
Flow[2]	Report, Gallons	Report, Gallons	1/month	Meter or Estimate
pH Range	Report S.U.	Report S.U.	1/month	Grab
Oil & Grease[3]	----	15 mg/L	1/month	Grab
TSS	Report mg/L	100 mg/L	1/month	Grab
Benzene[4]	Report mg/L	Report mg/L	1/month	Grab

Footnotes:

1. The water from the hydrant vaults and pits which collects in the Set-up tank shall be sampled after the treatment train consisting of an oil/water separator, a bag filter, and two carbon filters in series, prior to commingling with the water from the bermed areas of the fuel farm (including the AST bermed areas) and the water from the fuel loading rack. The sampling location designated Outfall 01E is the outlet of the last carbon filter. The water from the bermed areas of the fuel farm (including the AST bermed areas) and the water from the fuel loading rack combine with the treated water that is discharged at internal outfall 01E and pass through the oil/water separator located at the fuel farm, the outlet of which is designated as Outfall 01D. See **Figures 4A and 5** of the Fact Sheet for diagrams showing these sampling points. A monthly grab sample shall be taken during discharge, at a location representative of the discharge after treatment, as described above for each internal outfall. All samples shall be tested using the NPDES approved EPA analytical methods for the designated effluent characteristic in accordance with 40 C.F.R. §136. Alternative

methods can be used if approved by EPA in writing, in accordance with the procedures in 40 C.F.R. §136. For those months when there are no discharges, the Permittee must report a NODI Code (e.g., "C" for "No Discharge") on the DMR.

2. Metered readings or estimates of the total monthly and maximum daily amount of treated stormwater discharged to these internal outfalls shall be reported in gallons.

3. The Permittee shall use EPA Method 1664A for oil & grease (O&G) analysis, which has a minimum level (ML) of 5 mg/l, where the ML is the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for a pollutant or pollutant parameter, representative of the lowest concentration at which a pollutant or pollutant parameter can be measured with a known level of confidence.

4. The ML for benzene analysis shall be no greater than 2 µg/l. Analysis must be completed using an EPA approved method in 40 C.F.R. §136, Table IC – Non-Pesticide Organic Compounds. The detection limit (DL) for each analyte must be recorded. The DL is the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions (i.e., the level above which an actual value is reported for an analyte, and the level below which an analyte is reported as non-detect). When an analyte is not detected above the Practical Quantification Level (PQL), the Permittee must report using the data qualifier signifying less than the DL for that analyte (i.e., <0.1 µg/L, if the PQL for an analyte is 0.1 µg/L).

5. During the period beginning on the effective date and lasting through the expiration date, Massport and Co-Permittees that conduct operations in this outfall's drainage area are authorized to discharge stormwater associated with industrial activity to outfall 05A (Northwest) to Winthrop Bay. Sampling shall be conducted during wet weather as described below. Such discharges shall be monitored by Massport as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements[1]	
	Average Monthly	Maximum Daily	Measurement Frequency[2]	Sample Type[3]
Effluent Flow[4]	Report, MGD	Report, MGD	1/quarter	Estimated
pH, Range	Report S.U.	Report S.U.	1/quarter	Grab
Oil & Grease[5]	Report mg/L	15 mg/L	1/quarter	Grab
TSS	Report mg/L	100 mg/L	1/quarter	Grab

Footnotes:

1. Sampling taken in compliance with the monitoring requirements specified above shall be taken at Outfall 05A and prior to mixing with any other stream. Any change in sampling location must be reviewed and approved in writing by EPA and MassDEP. All samples shall be tested using the analytical methods found in 40 C.F.R. §136, or alternative methods approved by EPA in accordance with the procedures in 40 C.F.R. §136. Any changes in sampling location must be approved in writing by EPA and MassDEP. Also see footnote 2 in Part I.A.1 regarding the use of sufficiently sensitive test procedures.

2. The sampling frequency of 1/quarter is defined as the sampling of one discharge event per calendar quarter. Samples shall be collected during the calendar quarters of January through March, April to June, July to September, and October through December and the results submitted with the March, June, September, and December DMRs. The Permittee shall submit the results to EPA of any additional testing conducted beyond that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 C.F.R. §122.41(l)(4)(ii). For those months when there are no discharges, the Permittee must report a NODI Code on the DMR.

3. Grab samples at this outfall shall be taken during wet weather conditions, if practicable. Wet weather conditions are defined as a storm event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rain fall) storm event. The 72-hour interval may be waived when the preceding measurable storm did not yield a measurable discharge, or if the Permittee is able to document that less than a 72-hour interval is representative for local storm events during the sampling period. The grab sample shall be taken during the first thirty (30) minutes of the discharge. If it is not practicable to take the sample during the first 30 minutes, sampling shall be conducted as soon as is practicable after this 30-minute period has elapsed. Massport shall estimate the flow rate for the days that sampling is conducted based on the most recent hydraulic flow model developed by Massport or other acceptable method as approved in writing by EPA.

4. The effluent flow rate shall be estimated by the most recent hydraulic flow model developed by Massport or other acceptable method as approved in writing by EPA.

5. The Permittee shall use EPA Method 1664A for oil & grease (O&G) analysis, which has a minimum level (ML) of 5 mg/l, where the ML is the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for a pollutant or pollutant parameter, representative of the lowest concentration at which a pollutant or pollutant parameter can be measured with a known level of confidence.

6. During the period beginning on the effective date and lasting through the expiration date, Massport and Co-Permittees are authorized to discharge stormwater associated with industrial activity from pavement and runway activities other than deicing to outfalls 06A (airfield outfall A21) and Outfall 07A (airfield outfall A33) to Boston Harbor, and to Outfall 08A (airfield outfall A8) to Winthrop Bay. If industrial activity from aircraft and pavement/runway deicing activities has occurred within the last 24 hours, the Permittee will indicate that as a note on the DMR or as an attachment to the DMR. Sampling shall be conducted during wet weather as described below. Such discharges shall be monitored by Massport as specified below:

Effluent Characteristic	**Discharge Limitations**		**Monitoring Requirements[1]**	
	Average Monthly	**Maximum Daily**	**Measurement Frequency[2]**	**Sample Type[3]**
Effluent Flow[4]	Report MGD	Report MGD	1/quarter	Estimated
pH, Range	Report S.U.	Report S.U.	1/quarter	Grab
Oil & Grease[5]	Report mg/L	Report mg/L	1/quarter	Grab
TSS[6]	Report mg/L	Report mg/L	1/quarter	Grab
Dissolved Oxygen	Report mg/L	Report mg/L	1/quarter[7]	Grab

Footnotes:

1. Sampling taken in compliance with the monitoring requirements specified above shall be taken at Outfalls 06A, 07A, and 08A. Any change in sampling location must be reviewed and approved in writing by EPA and MassDEP. For example, the Permittee may request permission to sample alternative airfield outfalls if the designated outfalls are not easily accessible. All samples shall be tested using the analytical methods found in 40 C.F.R. §136, or alternative methods approved by EPA in accordance with the procedures in 40 C.F.R. §136. Any changes in sampling location must be approved in writing by EPA and MassDEP. Also see footnote 2 in Part I.A.1 regarding the use of sufficiently sensitive test procedures.

2. Samples shall be collected during the calendar quarters of January through March, April to June, July to September, and October through December and the results submitted with the April, June, September, and January DMRs. The Permittee shall submit the results to EPA of any additional testing conducted beyond that required herein, if it is conducted in accordance with EPA

approved methods consistent with the provisions of 40 C.F.R. §122.41(l)(4)(ii). For those months when there are no discharges, the Permittee must report a NODI Code on the DMR. If sampling is not conducted during the specified month, the Permittee shall attempt to sample during the following month.

3. Grab sample at these outfalls shall be taken during wet weather conditions, if practicable. Wet weather conditions are defined as a storm event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rain fall) storm event. The 72-hour interval may be waived when the preceding measurable storm did not yield a measurable discharge, or if the permittee is able to document that less than a 72-hour interval is representative for local storm events during the sampling period. The grab sample shall be taken during the first 30 minutes of the discharge. If it is not practicable to take the sample during the first 30 minutes, sampling shall be conducted as soon as is practicable after this 30 minute period has elapsed, Massport shall report the flow rate for the days that sampling occurs based on the model used to estimate flows at the airport.

4. The flow volume shall be estimated by using the most recent hydraulic flow model developed by Massport or other acceptable method during the days of sampling.

5. The Permittee shall use EPA Method 1664A for oil & grease (O&G) analysis, which has a minimum level (ML) of 5 mg/l, where the ML is the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for a pollutant or pollutant parameter, representative of the lowest concentration at which a pollutant or pollutant parameter can be measured with a known level of confidence.

6. Beginning after four quarterly samples have been collected, the Permittee shall calculate a rolling 4 sample average for TSS each subsequent calendar quarter. If any of these rolling average values is greater than 100 mg/L, the Permittee shall assess its SWPPP and BMP Plan and make changes that are designed to result in TSS levels that are below 100 mg/l for subsequent quarterly average values.

7. DO monitoring shall be conducted only during the quarters ending in December and March.

7. During the period beginning on the effective date and lasting through the expiration date, Massport and Co-Permittees are authorized to discharge stormwater associated with industrial activity from aircraft and pavement/runway deicing activities to Outfall 03B, Outfall 06B (airfield outfall A21), Outfall 07B (airfield outfall A33), and Outfall 08B (airfield outfall A8). If industrial activity from pavement and runway activities other than deicing has occurred within the last 24 hours, the Permittee will indicate that as a note on the DMR or as an attachment to the DMR. Such discharges shall be monitored by Massport as specified below:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements [1]	
	Average Monthly	Maximum Daily	Measurement Frequency [2]	Sample Type
Propylene Glycol	-----	Report mg/L	3/Deicing Season	Grab
BOD_5	-----	Report mg/L	3/Deicing Season	Grab
COD	-----	Report mg/L	3/Deicing Season	Grab
Dissolved Oxygen	-----	Report mg/L	3/Deicing Season	Grab
Tolyltriazoles [3], Total	-----	Report µg/L	3/Deicing Season	Grab
Nonylphenol [3], Total	-----	Report µg/L	1/Deicing Season	Grab

Footnotes:

1. Sampling taken in compliance with the monitoring requirements specified above shall be taken at Outfalls 06B, 07B, and 08B. For Outfall 03B, sampling shall be conducted only at the catch basin at the airside location where the Permittee is authorized to take a sample that is representative of discharge to Outfall 03B, as described in footnote 1 of Part I.A.2. Sampling shall be conducted during or soon after deicing has occurred in the respective drainage areas of these outfalls. The Permittee may request permission to sample alternative airfield outfalls if the designated outfalls are not easily accessible. Also see footnote 2 in Part I.A.1 regarding the use of sufficiently sensitive test procedures.

2. Sampling frequency of three per deicing season of October through April, when discharge occurs. The Permittee shall submit the results to EPA of any additional testing conducted beyond that required herein, if it is conducted in accordance with EPA

approved methods consistent with the provisions of 40 C.F.R. §122.41(l)(4)(ii). For those months when there are no discharges, the Permittee must report a NODI Code (e.g., "C" for "No Discharge") on the DMR.

3. See footnote 8 on Part I.A.3 above for tolyltriazole and nonylphenol analysis requirements.

Part I.A. continued:

8. The discharge shall not cause a violation of the water quality standards of the receiving waters.

9. The discharge shall be free from pollutants in concentrations or combinations that, in the receiving waters, settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity; or produce undesirable or nuisance species of aquatic life.

10. The discharge shall be free from pollutants in concentrations or combinations that adversely affect the physical, chemical, or biological nature of the bottom.

11. The discharge shall not result in pollutants in concentrations or combinations in the receiving water that are toxic to humans, aquatic life or wildlife.

12. The discharge shall be free from floating, suspended and settleable solids in concentrations or combinations that would impair any use assigned to the receiving waters.

13. The discharge shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.

14. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 C.F.R. § 122.42):

    a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
        (1) 100 micrograms per liter (µg/L);
        (2) 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol; and one milligram per liter (mg/L) for antimony;
        (3) Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. § 122.21(g)(7); or
        (4) Any other notification level established by the Director in accordance with 40 C.F.R. § 122.44(f) and State regulations.

b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
   (1) 500 µg/L;
   (2) One mg/L for antimony;
   (3) 10 times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. § 122.21(g)(7); or
   (4) Any other notification level established by the Director in accordance with 40 C.F.R. § 122.44(f) and State regulations.

c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

15. Massport, as the owner and operator of this airport facility and its stormwater collection system, is ultimately responsible for the discharges from this system to waters of the United States.

16. Massport shall comply with all existing federal, state, and local laws and regulations that apply to the reuse or disposal of solids, such as those which may be removed from any catch basins or settling basins on the site. At no time shall these solids be discharged to any receiving water.

17. The use of pavement or runway deicing compounds that contain urea is prohibited. If the Permittee determines that the use of urea is required based on safety considerations or a regulatory requirement of the Federal Aviation Administration (FAA), the Permittee shall notify the EPA and this permit will be modified to establish a total ammonia nitrogen effluent limit of 14.7 mg/l for those outfalls that receive discharges of deicing activities, consistent with the effluent limitation guidelines at 40 C.F.R. §449.

B. UNAUTHORIZED DISCHARGES

1. This permit authorizes discharges only from the outfall(s) listed in Part I.A.1 through I.A.7, in accordance with the terms and conditions of this permit. Discharges are authorized from all 44 airfield, perimeter outfalls. Monitoring that is representative of all airfield outfalls is required for 3 of these outfalls as shown in Parts I.A.6 and I.A.7. Discharges of wastewater from any other point sources are not authorized by this permit and shall be reported in accordance with Part D.1.e.(1) of the Standard Conditions of this permit (24-hour reporting).

2. The following discharges are prohibited from entering the storm drain system. Appropriate control measures, which are outlined in the SWPPP requirements below, shall be implemented to prevent such discharges.

a. Direct discharge of pollutants [any substance, material, or waste other than stormwater associated with industrial activity including but not limited to: oil and grease, vehicle fluids, fuel, waste oil, solvents, degreasing agents, cleaning solutions, battery acid, paint, paint thinners, antifreeze (not including deicing chemicals), pesticides, herbicides, fertilizers, dumpster wastes, sediment, landscape wastes, floatables, sewage, lavatory wastes, potable water chemicals, rubber particles] into the storm drain system;

b. Discharges of non-industrial stormwater and non-stormwater discharges that cause or threaten to cause pollution, contamination, sedimentation, or nuisance;

c. Discharge of wash water from equipment, vehicle, aircraft, and lavatory waste truck washing;

d. Discharge from firefighting training activities other than those from the Fire Training Facility to the permitted outfall as authorized by NPDES Permit #MA0032751;

e. Discharge from cleaning of floor drains, sumps, and oil/water separators that contains sediment, chemical, and any other pollutants;

f. Discharges from dewatering, hydrostatic tank testing or pipe pressure testing that contains sediment, chemicals, and any other pollutants;

g. Disposal of petroleum wastes such as waste oil; and

h. Disposal of any liquid waste from any dumpster.

C. SPECIAL CONDITIONS

1. Stormwater Pollution Prevention Plan (SWPPP)

Massport shall continue to implement the SWPPP that was developed pursuant to the 2007 Permit for all sources of pollutants generated or present at Logan International Airport, ("Logan"), which have the potential to be discharged to Boston Harbor, Boston Inner Harbor or Winthrop Bay. The SWPPP includes a general section for the control of all sources of water pollutants and four (4) additional discrete sections for each major source of pollutants: (1) deicing and anti-icing chemical sources, (2) potential illicit discharges, (3) fuel and oil sources, and (4) runway rubber removal sources. Pursuant to the SWPPP, BMPs shall continue to be designed and implemented to meet the applicable Best Available Technology Economically Achievable/Best Conventional Pollutant Control Technology (BAT/BCT) standards required by the CWA as well as the following water quality based requirements, at a minimum: (1) Any effluent shall not contain materials in concentrations or in combinations which are hazardous or toxic to aquatic life or which would impair the uses designated by the classification of the receiving

waters, and (2) The discharge shall not cause or contribute to a violation of the State water quality standards.

a. Co-Permittees & Other Tenants

Co-Permittees: Many tenants and service providers (often referred to as "fixed-base operators") operating at Logan have been named as "Co-Permittees" due to their industrial activities. See Permit Attachment B for a complete list of tenants that are Co-Permittees as of the issuance of this Final Permit. A Co-Permittee is a Permittee that is only responsible for permit conditions relating to the discharges for which it is an operator as provided at 40 C.F.R. § 122.26(b)(1). An entity meets the definition of a Co-Permittee if such entity performs industrial activities at an air transportation facility such as Logan, is classified under Standard Industrial Classification (SIC) 4581 and has vehicle maintenance shops, and conducts equipment cleaning operations, and/or airport deicing operations (see 40 C.F.R. §122.26(b)(14)(viii)). Vehicle maintenance includes vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication. Furthermore, entities are deemed to be Co-Permittees if they perform industrial activities at an air transportation facility as defined in the NPDES Stormwater Multi-Sector General Permit for Industrial Activities (2021 MSGP, Part 8.S.3), see also https://www.epa.gov/npdes/stormwater-discharges-industrial-activities). A Co-Permittee also includes an entity that performs an activity at Logan that EPA has determined can contribute to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States (see 40 C.F.R. §122.26(a)(v)), as it has for entities handling aircraft lavatory waste or any other sanitary waste devices not directly piped to a "Publicly Owned Treatment Works."

The Permittee shall maintain all Stormwater Co-Permittee Applications (SWCPAs) that the Co-Permittee tenants have completed. When a new Co-Permittee begins to operate at Logan or a Co-Permittee ceases to operate at Logan, Massport shall add or delete such SWCPAs from their list. This permit requires Massport to maintain a current list of the Co-Permittees at Logan and each Co-Permittee's contact for environmental issues. All new Co-Permittee tenants shall submit to Massport for approval their own SWPPP for the industrial activities they perform or agree that they will adopt Massport's SWPPP for the discharges resulting from their industrial activities within 60 days of being designated as new Co-Permittee.

When a new Co-Permittee begins to operate at Logan or a Co-Permittee ceases to operate at Logan, Massport shall follow the change in ownership or operational control requirements of 40 C.F.R. §122.63(d). Massport shall retain a signed copy of the SWCPA for each new Co-Permittee as well as each Co-Permittee's Part II form consistent with the Massport SWPPP which meets the requirements of this final permit. Massport shall keep a copy of its current SWPPP including copies of all current Co-Permittees SWPPPs at Massport's Environmental Department offices at Logan and shall make these available upon request to any representative of EPA or MassDEP.

Other Tenants: The presence and operations of other tenants at the airport, such as car rental and food preparation establishments which are not defined separately as having stormwater discharges associated with industrial activity under 40 C.F.R.§122.26(b)(14) shall also be addressed in the SWPPP. Massport shall require private agreements through contracts to ensure that the SWPPP for Logan addresses any potential stormwater contamination from these types of tenants. Massport shall ensure that these tenants manage any potential pollutant sources to stormwater in a manner consistent with this SWPPP.

b. SWPPP Certification and Annual Report

Massport shall maintain, update and ensure the proper implementation of its SWPPP and any separate Co-Permittee's SWPPP. With respect to the SWPPP, Massport is responsible for its own activities, each Co-Permittee is responsible for their own activities, and Massport has the overall responsibility for coordination and oversight. Massport and the Co-Permittees shall account for any changes that occur at Logan which could impact the SWPPP and amend it as necessary to reflect any changes at the airport.

Massport shall provide an Annual Report that includes a proper certification to EPA and the MassDEP documenting that the previous year's inspections and maintenance activities were conducted, results recorded, records maintained, and demonstrating compliance with the SWPPP. Massport shall revise its SWPPP within one year of the effective date of the permit to include any changes or additional elements required by this Permit. In this first year SWPPP revision, Massport shall also ensure that its SWPPP incorporates any of the technology-based effluent limits at Part 8.S.4 and SWPPP requirements at Part 8.S.5 of the 2021 MSGP that were not previously included. The report with the proper certification shall be signed in accordance with the requirements identified in 40 C.F.R. § 122.22. A copy of this certification will be due no later than January 31 of each year to cover the prior calendar year and include a complete listing of Co-Permittees and their respective contacts, incorporating additions and deletions through the calendar year. Massport shall obtain certifications (meeting the same requirements as described above for Massport) from all current Co-Permittees for their industrial activities and include these with the Annual Report submittal.

c. SWPPP Objectives

The SWPPP shall continue to focus on two major objectives: (1) to identify sources of pollution that have the potential to affect the quality of the water discharged from the airport's outfalls including, but not limited to, stormwater, process water, and wastewater associated with activities performed throughout the airport; and (2) to ensure implementation of measures to minimize and control pollutants in stormwater, wastewater

and process water discharges associated with activities performed throughout the airport, so as to meet the CWA standards set out in Part I.C.1 of this permit.

The SWPPP for Massport and the Co-Permittees shall address all sources of pollutants within their areas of operation that have the potential to drain to the stormwater sewer system including, but not limited to, where (1) chemicals or fuels are stored, (2) deicing and anti-icing chemicals are applied to airplanes, (3) aircraft are fueled, (4) solid wastes and raw materials with the potential to leak are stored, (5) solid wastes and raw materials stored indoors and have a potential to spill and flow to inside floor drains that drain to the stormwater system or to the outside, (6) automotive maintenance and cleaning activities occur, (7) aircraft maintenance activities occur, (8) deicing and anti-icing chemicals are spread on runways and roadways, (9) maintenance of the runways to remove rubber particles to improve the surface friction levels occurs, (10) sewer connections to the stormwater drainage system are identified, (11) aircraft lavatory wastes are removed and transported, (12) food or food wastes are stored that have the potential to attract birds and animals, and (13) birds tend to flock.

Massport and the Co-Permittees shall thoroughly evaluate all potential pollution sources at the site and select and implement appropriate measures designed to prevent or control the discharge of pollutants to the outfalls, in order to meet the CWA standards set out in Part I.C.1 of this permit. Massport shall designate an Environmental Representative (ER) that will be responsible for developing and implementing the facility wide SWPPP. Each Co-Permittee listed in Attachment B shall designate an ER responsible for implementing the SWPPP required for the Co-Permittee's facility and its activities. Massport shall: (1) maintain a team of qualified environmental airport personnel who are responsible for implementing the SWPPP and assisting Massport's ER responsible in its implementation; (2) continually assess the sources of water pollution; (3) select and implement appropriate environmental management practices and controls; and (4) periodically evaluate the effectiveness of the plan to prevent the release of pollutants to the stormwater sewer system.

Massport and the Co-Permittees shall develop management practices that use pollution prevention approaches to control the discharge of pollutants. The following classes of management practices are generally employed at industrial facilities and shall continue to be employed at Logan and outlined in the SWPPP:

(1) A pollution control program that implements practices such as good housekeeping, employee training, and spill response and prevention procedures; and
(2) Management practices that address containment, mitigation, and cleanup.

d. Outline of the SWPPP - The SWPPP shall contain the following elements:
   (1) Details of the SWPPP
      i. Pollution Prevention Team
      ii. Description of the Facility Regarding Potential Pollution Sources
      iii. Description of the Facility Site and Receiving Waters/Wetlands
      iv. Description of Potential Pollutant Sources
      v. Stormwater Management Controls
      vi. Site Inspection
      vii. Consistency with Other Plans
      viii. Amending the SWPPP
   (2) BMPs for Identifying and Reducing Deicing and Anti-Icing Sources
   (3) BMPs for Identifying and Reducing Potential Illicit Discharges
   (4) BMPs for Identifying and Reducing Fuel and Oil Sources
   (5) BMPs for Minimizing and Reducing Rubber Removal Sources

e. Details of the SWPPP

   (1) Pollution Prevention Team

   Massport shall maintain a team of individuals that includes an ER from each Co-Permittee, who shall be responsible for implementing the SWPPP and assisting the Massport ER in its implementation. When selecting members of the team, Massport's ER should draw on the expertise of all relevant departments and Co-Permittees within the airport to ensure that all aspects of airport operations are considered when the plan is developed. The plan must clearly describe the responsibilities of each team member as they relate to specific components of the plan. In addition to enhancing the quality of communication between team members and other personnel, clear delineation of responsibilities will ensure that every aspect of the plan is addressed by a specified individual or group of individuals.

   (2) Description of the Facility Regarding Potential Pollution Sources

   The SWPPP shall describe activities, materials, and physical features of the facility that may potentially contribute pollutants to stormwater runoff or, during periods of dry weather, result in pollutant discharges through the separate storm sewers or stormwater drainage systems throughout the facility. This assessment of stormwater pollution risk shall support subsequent efforts to identify and set priorities for necessary changes in materials, materials management practices, or site features, as well as aid in the selection of appropriate structural and nonstructural control techniques, if necessary.

   (3) Description of the Facility Site and Receiving Waters/Wetlands

The plan must contain a map or maps of the site that shows the location of outfalls covered by the permit (or by other NPDES permits), the pattern of stormwater drainage, an indication of the types of discharges contained in the drainage areas of the outfalls, structural features that control pollutants in runoff[2], surface water bodies (including wetlands), areas where significant materials[3] are exposed to rainfall and runoff, and locations where any spills and leaks of toxic or hazardous materials have occurred in the past five (5) years. Such maps shall display the locations where the following activities take place: (1) chemicals or fuels are stored, (2) deicing and anti-icing chemicals are applied to aircraft, (3) aircraft fueling, (4) outdoor solid waste and raw materials storage, (5) indoor solid waste and raw materials storage areas that have a potential to spill and flow to floor drains that drain to the stormwater system, (6) automotive maintenance and cleaning activities, (7) aircraft maintenance activities, and (8) application of deicing chemicals on impervious (paved) surfaces. For areas of the facility that generate stormwater discharges with a reasonable potential to contain significant amounts of pollutants, the map shall indicate the probable direction of stormwater flow and the pollutants likely to be in the discharge.

Flows with a significant potential to cause soil erosion also must be identified. In order to increase the readability of the map, the inventory of the types of discharges contained in each outfall may be kept as an attachment to the site map.

(4) Description of Potential Pollutant Sources

The SWPPP shall provide a description of potential sources which contribute pollutants to stormwater discharges or which may result in the discharge of pollutants draining from the facility. The description shall address each pollutant for which monitoring is required. The SWPPP must identify all activities and significant materials, which may potentially be significant pollutant sources. The SWPPP shall include:

[2] Non-structural features such as grass swales and vegetative buffer strips also should be shown.

[3] Significant materials include, but are not limited to the following: raw materials, fuels, solvents, detergents, and plastic pellets, finished materials, such as metallic products, raw materials used in food processing or production, hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), any chemical the facility is required to report pursuant to the Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313, fertilizers, pesticides, and waste products, such as ashes, slag, and sludge that have the potential be released with stormwater discharges. (See 40 C.F.R. §122.26(b)(8)).

i. A topographic map extending one-quarter of a mile beyond the property boundary of the facility;
ii. An estimate of the overall runoff coefficient for the site, determined by an acceptable method, such as area weighting;
iii. Methods of on-site storage or disposal of these materials; materials management practices employed to minimize contact of these materials with stormwater runoff; materials loading and access areas; the location and description of existing structural and nonstructural control measures to reduce pollutants in stormwater runoff; and description of any treatment the stormwater receives;
iv. A list of all spills and leaks of toxic or hazardous materials that have occurred at the facility five years prior to the effective date of this permit to the present;
v. A list of any non-stormwater discharges that are known or are reasonably expected to be present at the site.

(5) Stormwater Management Controls

Massport shall describe stormwater management controls appropriate for an airport and continue to implement such controls, in order to meet the CWA standards set out in Part I.C.1 of this permit. The appropriateness for implementing controls listed in the SWPPP must reflect identified potential sources of pollutants at the facility. The description of stormwater management controls must address the following minimum components, including a schedule for implementing such controls:

i. Pollution Prevention Team – as described in Part I.C.1.e.(1) above. The activities and responsibilities of the team must address all aspects of Logan's SWPPP.
ii. Risk Identification and Assessment/Material Inventory - The SWPPP must assess the potential of various sources at Logan that could contribute pollutants to stormwater discharges associated with industrial activity. The SWPPP must include an inventory of the types of materials handled. Each of the following areas or activities must be evaluated for the reasonable potential for contributing pollutants to runoff: (1) storage of chemicals or fuels, (2) applications of deicing and anti-icing chemicals to aircraft, (3) fueling of planes, (4) storage of solid wastes and raw materials with the potential to leak, (5) indoor storage of solid wastes and raw materials that have with a potential to spill and flow to inside floor drains that drain to the stormwater system, (6) automotive maintenance and cleaning activities, (7) airplane maintenance activities, (8) application of deicing chemicals on tarmac or other areas, (9) identification of sewer connections to the stormwater drainage system, (10) removal and transporting of aircraft lavatory wastes, (11) storage of food or food wastes that could potentially attract birds and animals, (12) flocking of birds, and (13) maintenance of runways to remove rubber particles to improve the surface friction levels. Factors to consider include the toxicity of chemicals; quantities of chemicals used, produced, or discharged; the likelihood of their contact with stormwater, and the history of significant leaks or spills of toxic or hazardous pollutants.
iii. Preventative Maintenance - A preventative maintenance program must be comprised of inspections and maintenance of stormwater management devices (i.e., oil/water separators, catch basins, track mats) as well as the periodic inspection and testing of facility equipment and systems to uncover conditions that could cause breakdown or failures resulting in discharges of pollutants to surface waters.
iv. Good Housekeeping - The SWPPP shall address good housekeeping, which requires the maintenance of a clean orderly facility. Examples of these practices are included in an existing component of Massport’s SWPPP which is entitled “General – Baseline BMPs.” These practices include actions such as frequent equipment cleanings, maintenance of clean floor and pavement areas, and proper centralized storage of chemical containers.

v. Spill Prevention and Response Procedure - Areas where potential spills can occur and their accompanying drainage points, must be identified clearly in the SWPPP. The potential for spills to enter the stormwater drainage system must be eliminated whenever feasible. Where appropriate, specific material handling procedures, storage requirements, and procedures for cleaning up spills must be identified in the SWPPP and made available to the appropriate personnel. The stormwater discharges shall be tested for pollutants contained in the material spilled, in the event that the spill has reached the stormwater drain, within 24 hours from the initial occurrence of the spill as directed by the EPA or the MassDEP during clean up associated with such occurrence. Massport is responsible for the sampling and analysis of storm drain discharges.

vi. Stormwater Management - The SWPPP must contain a narrative evaluation of the appropriateness of traditional stormwater management practices. Based on an assessment of the potential of various sources at the facility to contribute pollutants to the stormwater discharge, the SWPPP must provide measures, determined to be reasonable and appropriate, to be implemented and maintained, in order to meet the CWA standards set out in Part I.C.1 of this permit.

vii. Sediment and Erosion Prevention - The SWPPP must implement ongoing measures to protect receiving water quality from impacts due to construction activities that disturb less than one acre and are not subject to EPA's NPDES Construction General Permit (CGP).

viii. Employee Training - Employee training programs must inform personnel responsible for implementing activities identified in the SWPPP, or otherwise responsible for stormwater management at all levels, of the components and goals of the SWPPP. Training should address topics such as spill response, good housekeeping and material management practices. The SWPPP must identify periodic dates for such training, which shall be conducted annually, at a minimum.

ix. Visual Inspections - Qualified facility personnel must be identified to inspect designated equipment and facility areas. Material handling areas must be inspected for evidence of, or the potential for, pollutants entering the drainage system. Along with the monitoring required at three (3) of the forty-four (44) airfield outfalls, the discharge at each of the 44 outfalls shall be inspected annually during dry weather conditions. Inspections shall be conducted near low tide when many of these outfalls should be accessible. The inspector shall record evidence of any sheen, odors, or staining which would indicate the presence of pollutants. Weather conditions shall be recorded at the time of the inspection. A tracking or follow up procedure must be used to ensure that appropriate actions have been made in response to problems observed during the inspection (e.g. visible sheen, damaged outfall pipe). Records of inspections must be maintained for six (6) years, pursuant to Part II.C.1.b of the permit.

x. Recordkeeping and Internal Reporting Procedures - Incidents such as spills, or other discharges, along with other information describing the quality and quantity of stormwater discharges must be included in the SWPPP records. All inspections and maintenance activities must be documented and maintained on site for six (6) years.

(6) Site Inspection - An annual site inspection must be conducted by the Pollution Prevention Team, as named in the SWPPP, to verify that the description of potential pollutant sources is accurate, that the drainage map has been updated or otherwise modified to reflect current conditions, and controls to reduce pollutants in stormwater and process water discharges identified in the SWPPP are being implemented and are adequate. A tracking or follow-up procedure must be used to ensure that the appropriate action has been taken in response to any issues of concern identified during each inspection. Records documenting significant observations made during the site inspection must be retained as part of the SWPPP for six years.

(7) Consistency with Other Plans - Stormwater management controls may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the CWA and may incorporate any part of such plans into the SWPPP by reference.

(8) Amending the SWPPP - Massport and the Co-Permittees shall amend and implement an amended SWPPP whenever there is a substantial change in any aspects of design, construction, operation, or maintenance, which have a significant effect on the potential for the discharge of pollutants to any of the receiving waters; a release (as defined by 40 C.F.R. § 300.5) of reportable quantities of hazardous substances and oil; or if the SWPPP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges. Any such amended SWPPP shall be implemented within 30 days.

f. BMPs for Identifying and Reducing Deicing and Anti-icing Sources

Massport and Co-Permittees that store, handle or apply deicing and/or anti-icing compounds[4] at Logan International Airport shall continue to implement BMPs for Deicing and Anti-Icing Chemicals. The SWPPP shall include the following information:

[4] "Deicing" generally refers to both deicing (removing frost, snow or ice) and anti-icing (preventing accumulation of frost, snow or ice) activities, unless specific mention is made regarding anti-icing and/or deicing activities.

(1) Potential Pollution Sources – All Permittees that apply deicing and/or anti-icing chemicals must maintain a record of the types of such chemicals (including the Safety Data Sheets [SDS]) used and the monthly quantities, either as measured or, in the absence of metering, as estimated to the best of their knowledge. This includes all deicing and anti-icing chemicals, not only glycol formulations, because large quantities of such chemicals may have an adverse impact on receiving waters. Co-Permittees that conduct deicing operations shall provide a copy of the above information to Massport for inclusion in the Massport SWPPP and each annual Glycol Reduction Report described in I.C.1.f.7 below.[5]

(2) Source Reduction – All applicators of anti-icing and deicing chemicals shall consider alternatives to the use of these chemicals to reduce the aggregate amount of these chemicals used and/or lessen their environmental impact while maintaining flight safety.

Co-Permittees that deice aircraft shall implement a blend-to-temperature program for tracking and reducing the use of glycols, the documentation of which, shall be collectively managed and reported by Massport. This program requirement is detailed in Part I.C.2. below, which specifies a timeline by which this program is required to be implemented and an annual assessment of the reduction in glycol use and corresponding levels of effluent BOD and COD discharged to the receiving waters. It also requires the long-term reduction of the discharge of glycols. Massport shall continue to assess other measures to implement which will continue to reduce the levels of deicing chemicals that it applies on runways and taxiways at the airport.

Co-Permittees that are not subject to the blend-to-temperature program (small commuter and general aviation departures) shall continue to implement other measures described in the SWPPP above to minimize the use of glycols. **Co-Permittees shall communicate their findings to Massport for inclusion in each annual Glycol Reduction Report described in Part I.C.2.** Massport shall also continue to assess other measures to reduce the use and discharge of glycol compounds that it applies on runways and taxiways and include its findings in each annual Glycol Reduction Report described in Part I.C.2.

[5] MSGP 2021, Part 8.S.3.2

(3) Runway Deicing and Anti-icing– Massport and Co-Permittee tenants that conduct deicing operations shall ensure that only the necessary amount of deicing and anti-icing chemicals are used, consistent with considerations of flight safety and protocols established by the Federal Aviation Administration (FAA). Massport and applicable Co-Permittee tenants shall also consider the following BMP options (or their equivalents): metered application of chemicals; pre-wetting dry chemical constituents prior to application; installing a runway ice detection system; implementing anti-icing operations as a preventative measure against ice buildup.[6] The use of any deicing or anti-icing products that contain urea, consistent with the requirement established by 40 C.F.R. § 449, is prohibited.

(4) Aircraft Deicing –Co-Permittees shall ensure that only the necessary amounts of deicing chemicals are used, consistent with considerations of flight safety and protocols established by the FAA. This evaluation should be carried out by personnel most familiar with the particular aircraft and flight operations in question. Co-Permittees tenants that are not subject to the Deicer Discharge Reduction Plan (DDRP) in Part I.C.2 (small commuter and general aviation aircraft) shall also consider the following BMP options (or their equivalents) for reducing deicing fluid use: forced-air deicing systems, computer controlled fixed-gantry systems, infrared technology, hot water, enclosed-basket deicing trucks, mechanical methods, solar radiation, hangar storage, aircraft covers, and thermal blankets. Massport and its Co-Permittee tenants shall also consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems.[7]

(5) Management of Runoff - Where deicing and anti-icing operations occur, Massport and its Co-Permittee tenants shall describe and implement a program to control or manage contaminated runoff to reduce the amount of pollutants being discharged from the site. Massport and its Co-Permittee tenants shall consider the following BMP options (or their equivalents): a dedicated deicing facility with a runoff collection/recovery system; using vacuum/collection trucks; storing contaminated stormwater/deicing fluids in tanks and releasing controlled amounts to a POTW; and directing runoff into vegetative swales or other infiltration measures. Massport and its Co-Permittee tenants shall also consider recovering deicing materials when these materials are applied during non-precipitation events (e.g. covering storm sewer inlets, using booms, installing absorptive interceptors in the drains, etc.) to prevent these materials from later becoming a source of stormwater contamination. Used deicing fluid should be recycled whenever possible.

[6] MSGP 2021, Part 8.S.4.1.6
[7] MSGP 2021, Part 8.S.4.1.6

(6) Inspections – Massport shall specify the frequency of inspections in the SWPPP. At a minimum, inspections shall be conducted by qualified personnel monthly during the deicing season (e.g., October through April). Also, if significantly or deleteriously large quantities of deicing chemicals are being spilled or discharged, or if water quality impacts have been reported, Massport shall increase the frequency of inspections to weekly until such time as the deicing chemical spills/discharges and their associated impacts are minimized to the extent practicable.

(7) Re-evaluation of BMPs - The BMPs for deicing shall be re-evaluated after each deicing season, to determine if revised or supplemental BMPs are necessary in order to protect the water quality of the receiving waters. As described in Part I.D. below, the Permittee shall submit an annual Glycol Reduction Report, no later than September 30th each year, which will track the effluent levels of BOD and COD loading and the total usage of glycols for deicing on the airport.

g. BMPs for Identifying and Reducing Potential Illicit Discharges

(1) Purpose

Massport, with the cooperation of the Co-Permittees, will continue to implement a comprehensive plan to identify and eliminate dry and wet weather illicit discharges to its separate stormwater sewer system. The plan will focus on all potential sources of contamination, including but not limited to, the sanitary sewer system, lavatory handling practices, and illegal connections. These BMPs shall consist primarily of visual observations of the stormwater sewer and sanitary sewer systems including, video inspection of the sanitary sewer system and dye testing of the sewer pipes and building plumbing. The protocol may be modified to address atypical situations such as surcharged pipelines, groundwater or backwater conditions that preclude adequate inspection, or the presence of non-human wastes.

Massport may also employ additional investigative techniques, including indicator bacteria sampling, tracers (such as fluorescent whitening agents, caffeine, and sucralose), and genetic microbial source tracking, to identify potential inputs from the sanitary sewer system to the stormwater sewer system.

Within two years after the effective date of the permit, Massport shall submit a report to EPA and MassDEP outlining the findings associated with this BMP, describing measures that were taken to address any discovered illicit connections or damaged sewer lines as well as any additional remediation activities that were conducted or that are planned to address any impairments or illicit connections to the storm drainage system. Recently conducted assessments of any portions of the stormwater drainage system may be used to satisfy this requirement. The following metrics shall be considered:

i. Number/Percentage of manholes/structures inspected,
ii. Number/Percentage of buildings inspected/dye tested,
iii. Footage/Percentage of pipe cleaned and inspected by video,
iv. Infrastructure defects identified and repaired,
v. Number/Percentage of illicit discharges and cross-connections identified,
vi. Number/Percentage of illicit discharges and cross-connection removed,
vii. Unit and total costs of removal of illicit discharges and cross-connections, and
viii. Reduction in indicator bacteria (fecal coliform and Enterococci) densities at outfalls.

This report shall provide a narrative description of this BMP, plans for the duration of the permit term, and an evaluation of overall system health. If any major projects or improvements are identified as a result of this annual evaluation, then a schedule to address such projects shall be provided, particularly if their scope goes beyond the following year.

(2) Mapping

The 2007 Permit's SWPPP required the Permittee to develop maps showing a comprehensive depiction of key infrastructure and identifying potential cross-connections between the sanitary sewer and stormwater sewer systems and potential illicit sanitary sewer discharges. Within one year of the effective date of the permit, the Permittee shall update these maps to reflect new information, corrections, modifications, and improvements to the sewer systems and incorporate these into its SWPPP.

(3) Drainage Tributary Area Prioritization

The Permittee will continue to focus these investigative efforts on the prioritization of the drainage areas that it determined was appropriate pursuant to the current SWPPP. This prioritization shall be reviewed with the reissuance of this permit to ensure that it is still appropriate and revised as necessary.

(4) Sewer Rehabilitation, Cross-Connection Removal and Operational Improvements

Cross-connections as well as debris and grease build-up, structural deficiencies, and other system problems will be identified based on ongoing inspections and maintenance. Appropriate rehabilitation solutions will be implemented. Following removal of a cross-connection, illicit discharge, or other rehabilitation, dye testing will be used to verify the correction.

h. BMPs for Identifying and Reducing Discharges from Fuel and Oil Sources

(1) Above Ground Storage Tanks (ASTs) at Fuel Farm

The accumulated stormwater in the large AST secondary containment areas shall be combined with the flow from the fuel loading rack and the treated flow from the hydrant vaults and pits (Outfall 01E) and sent to the treatment system at the fuel farm to discharge at internal Outfall 01D. See I.A.4 of the permit, above, for additional requirements and applicable effluent limits associated with these internal outfalls.

(2) SPCC Plan

These BMPs can reference and must be consistent with the Spill Prevention Control and Countermeasures (SPCC) Plan for the ASTs at the site. The SPCC Plan requires an owner or operator of certain ASTs to prepare and comply with written, site-specific, spill prevention plans (see 40 C.F.R. Part 112). Any more stringent requirement below must be incorporated into the SPCC Plan/SWPPP.

(3) Minimum Requirements for ASTs

These BMPs shall require at a minimum that all spilled or leaked jet fuel (JET-A) or any other fuel from the ASTs be removed from the secondary containment system as quickly as practicable and in all cases within 24 hours of such an occurrence. Following any such spills or leaks, the secondary containment system (the bermed area around the ASTs) must be thoroughly cleaned to remove any residual contamination.

(4) Underground Storage Tanks

At the fuel farm, there is a 20,000-gallon underground storage tank (UST) referred to as the equalization/holding tank. Stormwater from the hydrant vaults and pits of the centralized fueling system is stored in this UST. This water undergoes treatment and is sampled at internal Outfall 01E in accordance with Part I.A.4 of the Permit.

A 12,000-gallon underground storage tank (UST) stores diesel fuel used by onsite trucks and two 12,000-gallon UST store gasoline for fueling on-site vehicles. A 1,000-gallon UST stores diesel fuel for an on-site electrical generator. These USTs and any additional USTs which provide fueling shall require the following BMPs, as defined in Part (5) below.

(5) Minimum Requirements for USTs and Loading Rack Area at the Fuel Farm and any other facilities providing fueling

BMPs shall include the following, at a minimum:

i. Install, inspect, maintain, test, and monitor all USTs in accordance with local, state and federal requirements.
ii. Divert stormwater flows away from fueling areas through the use of grade control, berms, or curbing to avoid stormwater contact with contaminated surfaces.
iii. Use fuel dispensing equipment with "breakaway" hoses and emergency shutdown of flow feature.
iv. Use automatic shutoff valves on fuel tanker trucks.
v. Develop a standard operating procedure (SOP) and enforce the procedures prohibiting the "topping off" of on-site vehicles to prevent the spilling of fuel.
vi. Post "No Topping Off" signs on fuel pumps intended for vehicular fueling to prevent overfills.
vii. Provide and maintain an adequate supply of spill response materials and equipment in fueling areas and on fueling trucks.
viii. Collect and properly dispose of any spilled fuel.

(6) Fueling Aircraft

Each Co-Permittee at the facility shall develop a SOP for each type of equipment that fuels aircraft including fueling from the centralized fuel line or remote fueling by tanker truck. The SOP shall include procedures for responding to minor spills (less than Reportable Quantities (RQs) as defined by 40 C.F.R. § 302.4) and major spills (greater than or equal to RQs). SOPs shall include the documentation of any quantity of JET-A or any other fuel spilled including the time and location and stipulate the spill control equipment that will be available. SOPs from Co-Permittees that fuel aircraft shall be reviewed and approved by Massport's ER to ensure consistency with Massport's Aircraft Fueling BMPs. Massport shall ensure that all Co-Permittees that conduct aircraft fueling provide ongoing refresher training for their employees or contractors that conduct fueling operations.

Each operator of fueling equipment shall have a communication device available for the purpose of alerting management of any spill. Any major spill shall be reported within two hours to the proper authorities in accordance with local, state and federal requirements.

Upon learning of a major spill, any Co-Permittee manager shall immediately alert the ER for Massport, after notifying the proper authorities.

(7) BMPs for Fueling Practices

The following BMPs are designed to prevent stormwater from contacting pollutants associated with fueling activities. Massport and Co-Permittees must implement the BMPs applicable to their facility and specific operations:

i. Describe and implement measures that prevent or minimize the discharge of fuel to the storm sewer/surface waters resulting from fuel servicing activities or other operations conducted in support of the airport fuel system. Consider the following fueling BMPs (or their equivalents): implementing spill and overflow practices (e.g., placing absorptive materials beneath aircraft during fueling); using dry cleanup methods; and collecting stormwater runoff.
ii. Collect and properly dispose of any spilled fuel.
iii. Provide and maintain an adequate supply of spill response materials and equipment on all fueling trucks.
iv. Manage the disposal of water that collects in fuel tanks and fueling hydrant sumps by disposing off site or treating before disposing. Avoid any contact with stormwater or stormwater catch basins.
v. Record all maintenance activities and inspections relating to fueling equipment, containers, and tanks in dedicated logbooks for the centralized fuel line and fuel trucks.
vi. Massport shall post information, with wording such as "Do Not Dump. Drains to Boston Harbor" by catch basins and other inlets that convey stormwater within 100 yards of any aircraft fueling location, if practicable.

(8) Aircraft Maintenance Activities at Hangars (includes washing)

Minor maintenance activities are permitted at the terminals and the terminal aprons. Minor maintenance activities include addition of fluids, changing tires, batteries and hoses, and other maintenance activities that do not have the potential of a release of pollutants. Fluid changes are not considered to be minor maintenance.

Major maintenance is permitted inside hangars and other buildings designed for maintenance of aircraft. Major maintenance includes fluid changes, engine repairs or engine disassembly. Major maintenance activities shall be performed indoors, except in case of an emergency or other compelling circumstance. The emergency or compelling circumstance and details of the maintenance activity shall be documented.

The following BMPs are designed to prevent stormwater from contacting pollutants associated with aircraft maintenance activities. Co-Permittees must implement the BMPs applicable to their facility and specific operations. Below is a list of best management practices that shall be considered in the development of the SWPPP.

i. Maintenance activities shall occur indoors at designated maintenance facilities.
ii. Equipment shall be maintained in a clean condition and stored indoors in properly designed and suitably designated areas.
iii. “Dry" cleaning and surface preparation techniques shall be used when possible.
iv. Use water-based cleaning agents or non-chlorinated solvents shall be used to clean equipment parts when possible.
v. Maintenance shall be conducted in buildings equipped with runoff controls to prevent discharges to stormwater.
vi. Maintenance activities or equipment staging shall not be conducted near stormwater catch basins or any stormwater drainage feature.
vii. Install and maintain catch basin filter inserts that assist in the removal of oil and grease, sediments and floating pollutants that may discharge from maintenance work areas, active construction sites, and other areas that may experience higher than average loadings of such materials.
viii. Use drip pans, absorbent materials, booms, etc. to collect fluid drippings.
ix. Use absorbent materials at potential problem areas. Collect/remove absorbent and used spill control materials promptly. The materials shall be properly stored and disposed of offsite according to applicable state and federal regulations.
x. Conduct periodic cleaning of any catch basins (annually at a minimum) that receive runoff within 100 yards of an aircraft maintenance area, including catch basins outside a hangar. Wastes from catch basins must be contained and properly disposed of off-site. The flushing of contents of catch basins to receiving waters is prohibited.
xi. Store all parts and equipment for aircraft maintenance indoors.
xii. Store and properly dispose of all fluids generated from aircraft maintenance. Provide secondary containment while storing waste fluids such as greases, oils, antifreeze, brake fluid, cleaning solutions, hydraulic fluid, batteries, transmission fluid, and filters.
xiii. Whenever possible, use biodegradable products and substitute materials with less hazardous properties.
xiv. Post information, with wording such as "Do Not Dump. Drains to Boston Harbor" by catch basins and other inlets that convey stormwater within 100 yards of any aircraft maintenance location including outside aircraft hangars, if practicable.
xv. No wash waters from cleaning aircraft are to be discharged to a stormwater drainage system.

(9) Automotive and Ground Service Equipment Maintenance Activities (including washing)

Automotive and ground service equipment (GSE) maintenance activities performed on airport property shall be performed indoors in maintenance garages or maintenance facilities, except in case of an emergency or other compelling circumstance or in the case of minor activities as described below. No maintenance activities shall be performed on

terminal aprons at any time, except in case of an emergency. The emergency or compelling circumstance and details of the maintenance activity shall be documented in the SWPPP files. Minor maintenance activities are permitted outdoors. Minor maintenance activities include addition of fluids, changing tires, batteries and hoses, and other maintenance activities that do not produce the potential for release of pollutants. Fluid changes are not considered to be minor maintenance. Major maintenance is permitted indoors. Major maintenance includes fluid changes, engine repairs, and engine disassembly.

The following BMPs apply to maintenance activities such as fluid changes, engine repairs or engine disassembly of automotive vehicles or ground service equipment. The BMPs are designed to prevent stormwater from contacting pollutants associated with automotive and ground service equipment maintenance activities. Co-Permittees must implement the BMPs applicable to their facility and specific operations. Below is a list of best management practices that shall be considered in the development of the SWPPP.

i. Maintenance activities shall occur indoors at designated garage or maintenance facilities.
ii. Equipment shall be maintained in a clean condition and parts and equipment shall be stored indoors at properly designed and suitably designated areas.
iii. "Dry" cleaning and surface preparation techniques shall be used when possible.
iv. Use water-based cleaning agents or non-chlorinated solvents to clean equipment parts when possible.
v. Eliminate excessive buildup of oil and grease on vehicles, equipment and work area surfaces.
vi. Conduct maintenance in buildings equipped with runoff controls to prevent discharges to stormwater.
vii. Maintenance activities or equipment staging shall not be conducted near stormwater catch basins or any stormwater drainage feature.
viii. Install and maintain catch basin filter inserts that assist in the removal of oil and grease, sediments and floating pollutants that may discharge from maintenance work areas.
ix. Use drip pans, absorbent materials, booms, etc. to collect fluid drippings.
x. Use absorbent materials at potential problem areas. Collect/remove absorbent and used spill control materials promptly. The materials shall be properly stored and disposed of offsite according to applicable state and federal regulations.
xi. Store oil filters and empty lubricant containers in leak-proof containers staged on secondary containment indoors. Spent hydraulic oil cans, filters, or used absorbent materials are not to be placed in trash receptacles or dumpsters.
xii. Conduct periodic cleaning of any catch basins (annually at a minimum) that receive runoff within 100 yards of a maintenance garage or maintenance facility including catch basins outside of a facility. Wastes from catch basins must be collected and properly disposed of off-site. The flushing of contents of catch basins to receiving waters is prohibited.
xiii. Store and properly dispose of all fluids generated from automotive or GSE maintenance. Remove and properly dispose of batteries from automotive or GSE operations. Provide secondary containment while storing waste fluids such as greases, oils, antifreeze, brake fluid, cleaning solutions, hydraulic fluid, batteries, transmission fluid, and filters.
xiv. Whenever possible, use biodegradable products and substitute materials with less hazardous properties.
xv. Post information, with wording such as "Do Not Dump. Drains to Boston Harbor" by catch basins and other inlets that convey stormwater within 100 yards of any automotive or GSE maintenance location, if practicable.
xvi. No wash waters from cleaning automotive and GSE are to be discharged to a stormwater drainage system.

i. BMPs for Minimizing and Reducing Rubber Removal Sources

(1) Runway Maintenance –

Over time, materials such as tire rubber, oil and grease, paint chips, and jet fuel can build up on the surface of a runway causing a reduction in the friction of the pavement surface. When the friction level of a runway falls below a specific level, maintenance must be performed. The FAA recommends several methods for removing rubber deposits and other contaminants from a runway surface including the use of high pressure water, chemical solvents, high velocity particle impact, and mechanical grinding. If not properly managed, the materials removed from the runway surface could be discharged into nearby surface waters. Similarly, if chemical solvents are used in these operations, improper management practices could result in discharges of the chemical solvents in the stormwater runoff from runway areas.

Massport uses high pressure water spray to periodically remove rubber deposits from the runways. Massport is required to implement measures to minimize the discharge of the dislodged material from runways during these operations into the drainage system. All collected rubber debris from this operation shall be disposed of according to local or State ordinances. Any washwaters from rubber removal operations shall not be discharged to the storm drain system or sanitary sewer. Such washwaters may be discharged to grassy areas of the airfield, provided all of the catch basins in the vicinity of such areas are covered. Massport shall notify the EPA and MassDEP of any changes to this procedure.

2. Long Term Reduction in Glycol Usage and BOD/COD Loading

Beginning the first full deicing season that is at least two years after the effective date of this permit, Co-Permittees that conduct deicing of aircraft, shall implement a Blend-to-Temperature program for the use of aircraft deicing products containing glycol as part of an overall Deicer Discharge Reduction Plan (DDRP). The use of a Blend-to-Temperature program has been determined through Best Professional Judgement (BPJ) to constitute Best Available Technology (BTA) for the control of discharges of aircraft deicing fluids at Logan Airport. The DDRP will not require the Blend-to-Temperature program to be implemented by small commuter and general aviation aircraft, although these entities must implement other Pollution Reduction Technologies (PRTs) described in the SWPPP in Part I.C.1.f. PRTs are defined as technologies employed to control discharges resulting from aircraft deicing that are required to support normal flight operations at Logan Airport. For purposes of this permit, “Blend-to-Temperature” shall mean a system to blend Type I aircraft deicing fluids (ADF) based on temperature and other factors, including ensuring compliance with all FAA regulations and operational safety, that will reduce the use of these fluids.

The DDRP shall be incorporated into Massport’s SWPPP within twenty-four (24) months of the effective date of this permit. Co-Permittees that conduct aircraft deicing operations shall

implement these updated SWPPP requirements no later than the first full deicing season that is at least two years after the effective date of this permit.

Massport shall submit the DDRP to EPA and MassDEP within six (6) months of the effective date of the permit. The permittee shall address any comments received by EPA or MassDEP on the DDRP within six (6) months of receipt of such comments. The Co-Permittees, with Massport's support as needed, shall implement the DDRP no later than the first full deicing season that is at least two years after the effective date of this permit. The DDRP shall be made available to the public to the extent allowable by law.

The DDRP shall include:

- A description of the Blend-to-Temperature program.

- A description of the methods and data that will be used to calculate and report the annual relative aircraft glycol use and COD/BOD loading reductions resulting from the implementation of the Blend-to-Temperature program.

- Descriptions of other PRTs implemented to further reduce the application and/or discharges of aircraft glycol in comparison to the absence of such PRTs.

- A requirement that Co-Permittees that deice aircraft quantify the volume of ADF used throughout each deicing season, a period that runs from October 1 through April 30. Massport shall implement data collection and analysis measures to quantify such use by Co-Permittees and submit its findings in a report to the agencies.

- Consideration of other deicer reduction practices described in the Airport Cooperative Research Program (ACRP) Report 14: Deicing Planning Guidelines and Practices for Stormwater Management Systems (2nd Edition, April 2020) as well as other industry publications, and

- Consideration of product substitution and operational changes for runway deicers that reduce the oxygen demand of deicer discharges, such as using products that contain a lower percentage of glycols and/or other oxygen demanding substances.

Massport, in cooperation with the Co-Permittees, shall submit an annual Glycol Reduction Report by September 30th each year, which tracks the implementation of the DDRP. The Glycol Reduction Report shall include:

- Each air carrier or FBO conducting deicing operations (excluding those entities that are exempt from the BTT requirement), shall certify annually for each deicing season that BTT technologies were implemented for each deicing season.

- The annual relative (i.e., percent) reduction in the volume of glycol applied using the Blend-to-Temperature program compared to the volume of glycol that would have been applied in the absence of the Blend-to-Temperature program for the deicing season. All analyses and assumptions underlying this reduction estimate shall be provided.
- The annual relative (i.e., percent) reduction in COD/BOD loadings discharged to Outfalls 001 and 002 compared to the loadings that would have been discharged in the absence of the Blend-to-Temperature program for the deicing season. Massport will use the monthly sampling requirement for BOD/COD during each deicing season as well as any additional sampling results to assure that the extrapolated effluent loading estimates are reliably accurate and statistically significant. All analyses and assumptions underlying this reduction estimate shall be provided.
- The estimated total annual amounts of glycol applied and potentially available for discharge via Outfalls 001 and 002 as a result of aircraft deicing operations.
- Consideration of weather and other factors that affect the performance of the Blend-to- Temperature program.
- An assessment of whether the glycol reduction target of 30% has been met. Massport, in coordination with its Co-Permittee tenants, shall explain why the 30% reduction target was not met and describe the measures that the Co-Permittee tenants will take towards attaining this reduction target in subsequent years, if feasible.
- Massport shall also reduce the use of acetate formulations for the deicing of ramps, taxiways, and runways to the extent practicable.

3. Discharges of Chemicals and Additives

The discharge of any chemical or additive, including chemical substitution, which was not reported in the application submitted to EPA or provided through a subsequent written notification submitted to EPA is prohibited. Upon the effective date of this permit, chemicals and/or additives which have been disclosed to EPA may be discharged up to the frequency and level disclosed, provided that such discharge does not violate §§ 307 or 311 of the CWA or applicable State water quality standards. Discharges of a new chemical or additive is authorized under this permit 30 days following written notification to EPA unless otherwise notified by EPA. To request authorization to discharge a new chemical or additive, the Permittee must submit a written notification to EPA in accordance with Part I.D.3 of this permit. The written notification must include the following information, at a minimum:

a. The following information for each chemical and/or additive that will be discharged:
   (1) Product name, chemical formula, general description, and manufacturer of the chemical/additive;
   (2) Purpose or use of the chemical/additive;
   (3) Safety Data Sheet (SDS), Chemical Abstracts Service (CAS) Registry number, and EPA registration number, if applicable, for each chemical/additive;
   (4) The frequency (e.g., daily), magnitude (i.e., maximum application concentration), duration (e.g., hours), and method of application for the chemical/additive;
   (5) The maximum discharge concentration; and
   (6) The vendor's reported aquatic toxicity, if available (i.e., NOAEL and/or LC50 in percent for aquatic organism(s)).

b. Written rationale which demonstrates that the discharge of such chemicals and/or additives as proposed will not: 1) Add any pollutants in concentrations which exceed permit effluent limitations; 2) Exceed any applicable water quality standard; and 3) Add any pollutants that would justify the application of permit conditions that are different from or absent in this permit.

c. After one year of monitoring, if all samples are non-detect for all six PFAS compounds, using EPA's multi-lab validated method for wastewater, the Permittee may request to remove the requirement for PFAS monitoring. Until written notice is received from EPA indicating that the PFAS monitoring requirements have been changed, the Permittee is required to continue the monitoring specified in this permit. See Reporting Requirements in Part I.D.3.a(8).

4. [Reserved]

5. pH Study

In order to continue the pH limit range of 6.0 - 8.5 S.U. in future permits, within three (3) years of the effective date of the permit, the Permittee shall conduct a study to demonstrate that the pH in the receiving water does not exceed the range of 6.5-8.5 S.U. At least six (6) months prior to beginning to conduct the study, the Permittee shall contact MassDEP (massdep.npdes@mass.gov) for guidance on how to complete the study. The completed pH study shall be submitted in accordance with Part I.D.2. and Part I.D.5 below.

6. Compliance Schedule for Bacteria

a. The fecal coliform and *Enterococcus* limits in Parts I.A.1 and I.A.2 of this Permit shall be met no later than October 31, 2038 according to the schedule provided in this Part.

b. The Permittee shall implement a systematic investigation of dry weather flows in the storm drain system within the drainage areas for Outfalls 001, 002, 003, and 004. The investigation must, at a minimum, include the activities described below. The investigation of the storm drain system and elimination of any illicit discharges in all four drainage areas shall be completed no later than October 31, 2028 in accordance with the schedule in Table 1.
   (1) The Permittee must finalize a plan to systematically inspect key manhole junctions for illicit discharges in the drainage areas to Outfalls 001, 002, 003, and 004.
   (2) The Permittee must complete dry weather sampling investigations, which shall include sampling key manhole junctions for evidence of illicit discharges and cleaning and removal of sediment build-up in the storm drain system that has been determined to contribute to bacteria concentrations in drainage areas. Where active dry weather flow is observed at a key junction, the Permittee must collect a minimum of three dry weather samples and analyze the sample for Enterococcus, fecal coliform, surfactants, ammonia, total chlorine, and Pharmaceutical and Personal Care Products (PPCP). The analysis for PPCP must use a method that achieves reporting limits at least as sensitive as EPA Method 1694 (high-performance liquid chromatography-mass spectrometry method).
   (3) The Permittee must eliminate illicit discharges within 60 days of the date of verification. Date of verification shall be the date on which the Permittee identifies the point of entry of an illicit discharge from a specific location or address. If elimination within 60 days is not feasible, the Permittee must submit to EPA for approval an alternative schedule that eliminates the illicit discharge as expeditiously as possible. If removal of an illicit discharge is the responsibility of a third party, the Permittee shall notify the owner in writing within 30 days of the date of verification of its responsibility to eliminate the illicit discharge within 60 days of the third party becoming aware of the illicit discharge. The Permittee will not be held responsible should the third party fail to eliminate the illicit discharge within the required time.
   (4) The Permittee shall perform confirmatory screening within 60 days following the elimination of an illicit discharge.

TABLE 1. DRY WEATHER COMPLIANCE SCHEDULE	
Milestone	Compliance Date
Submit Dry Weather Investigation Plan to EPA	Completed Aug 1 2024
Update North Drainage Area Map	Completed Aug 13 2024
Finalize Dry Weather Investigation Plan	Completed Sep 11 2024
Update Porter, Maverick, and West Drainage Area Map	Completed Oct 31 2024

Complete North Drainage Dry Weather Investigation & Sediment Removal	Sep 30 2025
Complete Porter & Maverick Drainage Dry Weather Investigation & Sediment Removal	Oct 31 2026
Complete North Drainage "Find It Fix It" Program	Oct 31 2027
Eliminate Illicit Discharges in North Drainage Area	Oct 31 2027
Complete Porter & Maverick Drainage "Find It Fix It" Program	Oct 31 2027
Eliminate Illicit Discharges in Porter & Maverick Drainage Area	Oct 31 2027
Complete West Drainage Dry Weather Investigation & Sediment Removal	Jun 30 2028
Complete West Drainage "Find It Fix It" Program	Oct 31 2028
Eliminate Illicit Discharges in West Drainage Area	Oct 31 2028

c. The Permittee shall implement a plan to address bacteria in wet weather flows in the storm drain system within the drainage areas for Outfalls 001, 002, 003, and 004. The plan to address bacteria in wet weather flows must, at a minimum, include the activities described below and in accordance with the schedule in Table 2.
   (1) The Permittee shall complete and implement a plan for wet weather investigations to identify sources of bacteria in the drainage areas for Outfalls 001, 002, 003, and 004 and prioritize areas of high bacteria loads.
   (2) The Permittee shall complete and implement a plan to identify, execute, and evaluate non-structural controls in the drainage areas for Outfalls 001, 002, 003, and 004 to target reductions in sources of bacteria.
   (3) The Permittee shall complete a Green Infrastructure Suitability Analysis to evaluate the feasibility of stormwater structural controls and identify structural controls recommended for further consideration.
   (4) The Permittee shall implement a Pilot Program to evaluate the effectiveness of non-structural and/or structural BMPs to address bacteria.
   (5) The Permittee, shall, either independently or in connection to the BMP Pilot Program, execute a Priority Bacteria Mitigation Project in each drainage area to include installation of BMPs to address areas of high bacteria loads (identified in I.C.6.c.1, above).
   (6) The Permittee shall develop and submit a Stormwater Master Plan to EPA that includes a plan to meet the applicable bacteria limits in Part I.A.1 and I.A.2 at Outfalls 001, 002, 003 and 004 no later than October 31, 2038.

TABLE 2. WET WEATHER COMPLIANCE SCHEDULE	
Milestone	Compliance Date
Submit Wet Weather Investigation Plan to EPA	Completed Nov 1 2024
Finalize Wet Weather Investigation Plan	Completed Dec 20 2024

Finalize Plan for Non-structural Controls in All Drainage Areas	**Oct 31 2025**
Implement the Non-structural Control Plan in All Drainage Areas	**Oct 31 2026**
Complete Green Infrastructure Suitability Analysis and Description of Structural and/or Non-structural Stormwater Control Measure Pilot Program[1]	**Dec 31 2026**
Complete Wet Weather Field Investigations in North, Maverick, and Porter Drainage Areas	**Oct 31 2027**
NPDES Reissuance Application Due	**May 4 2028**
Complete Wet Weather Field Investigations in West Drainage Area	**Jun 30 2028**
2023 NPDES Individual Permit Expiration Date	**Oct 31 2028**
Complete Piloting of Structural and/or Non-structural Stormwater Control Measures to Inform Priority Bacteria Mitigation Projects[2] and Stormwater Master Plan	**Oct 31 2029**
Complete Priority Bacteria Mitigation Project in One Drainage Area	**Oct 31 2030**
Complete Priority Bacteria Mitigation Projects in Second Drainage Area	**Oct 31 2032**
Complete Priority Bacteria Mitigation Project in Two Remaining Drainage Areas	**Oct 31 2033**
Submit Draft Stormwater Master Plan to EPA	**Mar 31 2033**
Finalize Stormwater Master Plan to Meet WQBELs at All Outfalls	**Oct 31 2033**
Meet WQBELs at All Drainage Outfalls	**Oct 31 2038**

1 Massport will pilot structural and/or non-structural best management practices (BMPs) through October 31, 2029. BMP pilot projects will be selected utilizing information gathered from sampling and the Green Infrastructure Suitability Analysis.

2 The Priority Bacteria Mitigation Project may be a structural or non-structural BMP, or combination of the two. Mitigation Projects shall be located in targeted sub-catchment areas exhibiting relatively high bacteria concentrations and considering airport operations, spatial constraints, or future land use priorities. Bacteria reductions for the Projects shall be measured at a storm drain structure immediately downstream of the project area.

d. Beginning in November 2024 and continuing through November 2030, the Permittee must submit a progress report no later than 14 days following each compliance date.[8] Beginning in October 2031 and continuing until full compliance with the bacteria limits in Parts I.A.1 and I.A.2 is met, the Permittee shall submit an Annual Progress Report no later than November 14 of each year. All progress reports must summarize activities completed over the prior reporting period and preview activities that will be continued or implemented in the next reporting period to address bacteria. All progress reports shall be submitted in accordance with reporting requirements in Part I.D.3.b of this Permit. Copies of all progress reports shall also be sent to MassDEP at massdep.nerowastewater@mass.gov. Reporting of activities completed in accordance with the dry weather investigations and sediment removal interim milestones in Part I.C.6.b above shall include, where appropriate.

(1) Updated Catchment Area Maps for each drainage area reflecting new information, corrections, and modifications discovered during the investigations. Maps shall depict:

i. Segments of drainage area investigated during the reporting period;
ii. Alignments, dates, and thematic representation of work completed during the reporting period (key manhole junctions sampled, flow isolation, dye testing, CCTV, etc.);
iii. Segments of drainage infrastructure where sediment removal was conducted;
iv. Locations of illicit discharges identified (with dates and flow estimates);
v. Locations of all corrective actions initiated or completed (with start and end dates); and
vi. Location and dates of planned infrastructure remediation or capital projects.

(2) A Dry Weather Investigation Update summarizing progress in screening for dry weather flows, sediment removal, and identifying and eliminating illicit discharges, including:

i. The percentage of each drainage area investigated during reporting period;
ii. The cumulative percentage of dry weather investigations completed;
iii. The number and percentage of key manhole junctions investigated in each drainage area;
iv. The linear feet of storm drain infrastructure investigated and by what means;
v. The linear feet of sanitary sewer infrastructure investigated (if applicable) and by what means;
vi. Screening and sampling results;
vii. A listing of all illicit discharges identified in each drainage area during the previous reporting period. For each illicit discharge Massport will provide:

- **Estimated volume**
- **Date of verification**
- **Corrective Action taken**

[8] Where the milestone required in Tables 1 and 2 of the Draft Permit Modification is the submission of a plan or an application, the submission of the plan or application satisfies the requirement to submit a progress report no later than 14 days following the compliance date.

- **Date removed**
- **Results of confirmatory sampling**

(3) Reporting of activities completed in accordance with the wet weather investigations in Part I.C.6.c above shall include, where appropriate:

i. Results of wet weather sampling;
ii. Results of all sampling associated with evaluating effectiveness of non-structural and structural controls;
iii. Results of the Green Infrastructure Suitability Analysis;
iv. Results of Structural Control Pilot Projects;
v. Results of ongoing or completed activities associated with Priority Bacteria Mitigation Projects;
vi. Results of ongoing or completed activities in the Stormwater Master Plan.

e. The schedule for meeting the fecal coliform and Enterococcus limits in Parts I.A.1 and I.A.2 of this Permit is based on information presently available to the Permittee and EPA. At such time(s) as Permittee submits NPDES permit renewal applications in the future, notwithstanding any provision contained to the contrary herein, the Permittee may request EPA extend the schedule. EPA will review and consider the Permittee's compliance with the compliance schedule, analysis of the impacts of completed activities, data collected, then-current water quality conditions, and any new data discovered by the Permittee in the course of its compliance activities. EPA will also consider updated information regarding available stormwater management strategies and technologies, and any other relevant information. If EPA determines that additional time is necessary for Permittee to meet the bacteria WQBELs as soon as possible, EPA will adjust the schedule as appropriate. Any request to change in the compliance schedule in the future must be fully explained and justified based on new information.

D. REPORTING REQUIREMENTS

Unless otherwise specified in this permit, the Permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

1. Submittal of DMRs Using NetDMR

   The Permittee shall continue to submit its monthly monitoring data in discharge monitoring reports (DMRs) to EPA and the State no later than the 15th day of the month electronically using NetDMR. When the Permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or the State. NetDMR is accessed from the internet at https://netdmr.zendesk.com/hc/en-us.

2. Submittal of Reports as NetDMR Attachments

   Unless otherwise specified in this permit, the Permittee shall electronically submit all reports to EPA as NetDMR attachments rather than as hard copies. See Part I.D.5. for more information on State reporting. Because the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this permit.

3. Submittal of Requests and Reports to EPA/WD

   a. The following requests, reports, and information described in this permit shall be submitted to the EPA/WD NPDES Applications Coordinator in EPA's Water Division:
      (1) Transfer of Permit notice;
      (2) Request for changes in sampling location;
      (3) SWPPP reports and certifications, if required;
      (4) Request to discharge new chemicals or additives;
      (5) Request for change in WET testing requirements;
      (6) Report on unacceptable dilution water/request for alternative dilution water for WET testing;
      (7) Deicer Discharge Reduction Plan/Glycol Reduction Report; and
      (8) Request for discontinuation of per- and polyfluoralkyl substances (PFAS) sampling requirements.

   b. These reports, information, and requests shall be submitted to EPA/WD electronically at R1NPDESReporting@epa.gov or by hard copy mailed to the following address:

U.S. Environmental Protection Agency
Water Division
EPA/WD NPDES Applications Coordinator
5 Post Office Square - Suite 100 (06-03)
Boston, MA 02109-3912

4. Submittal of Reports in Hard Copy Form

   a. The following notifications and reports shall be signed and dated originals, submitted in hard copy, with a cover letter describing the submission:

      Written notifications required under Part II. Beginning December 21, 2025, such notifications must be done electronically using EPA's NPDES Electronic Reporting Tool ("NeT"), or another approved EPA system, which will be accessible through EPA's Central Data Exchange at https://cdx.epa.gov/.

b. This information shall be submitted to EPA ECAD at the following address:

U.S. Environmental Protection Agency
Environmental Compliance Assurance Division
Water Compliance Section
5 Post Office Square, Suite 100 (04-SMR)
Boston, MA 02109-3912

5. State Reporting

Duplicate signed copies of all WET test reports shall be submitted to the Massachusetts Department of Environmental Protection, Division of Watershed Management, at the following address:

Massachusetts Department of Environmental Protection
Bureau of Water Resources
Division of Watershed Management
8 New Bond Street
Worcester, Massachusetts 01606

An electronic copy of the pH Study described in Part I.C.5 shall be submitted to massdep.npdes@mass.gov.

6. Verbal Reports and Verbal Notifications

a. Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit shall be made to both EPA and to the State. This includes verbal reports and notifications which require reporting within 24 hours (e.g., Part II.B.4.c. (2), Part II.B.5.c. (3), and Part II.D.1.e.).

b. Verbal reports and verbal notifications shall be made to:

617-918-1510

c. Verbal reports and verbal notifications shall be made to the State's Emergency Response at:

888-304-1133

E. STATE 401 CERTIFICATION CONDITIONS

This Permit is in the process of receiving state water quality certification issued by the State under § 401(a) of the CWA and 40 C.F.R. § 124.53. EPA will incorporate by reference all State water quality certification requirements (if any) into the Final Permit.

Attachment A - MARINE ACUTE

TOXICITY TEST PROCEDURE AND PROTOCOL

I. GENERAL REQUIREMENTS

The permittee shall conduct acceptable acute toxicity tests in accordance with the appropriate test protocols described below:

- **2007.0 - Mysid Shrimp (Americamysis bahia) definitive 48 hour test.**
- **2006.0 - Inland Silverside (Menidia beryllina) definitive 48 hour test.**

Acute toxicity data shall be reported as outlined in Section VIII.

II. METHODS

The permittee shall use the most recent 40 CFR Part 136 methods. Whole Effluent Toxicity (WET) Test Methods and guidance may be found at:

https://www.epa.gov/cwa-methods/whole-effluent-toxicity-methods

The permittee shall also meet the sampling, analysis and reporting requirements included in this protocol. This protocol defines more specific requirements while still being consistent with the Part 136 methods. If, due to modifications of Part 136, there are conflicting requirements between the Part 136 method and this protocol, the permittee shall comply with the requirements of the Part 136 method.

III. SAMPLE COLLECTION

A discharge and receiving water sample shall be collected. The receiving water control sample must be collected immediately upstream of the permitted discharge's zone of influence. The acceptable holding times until initial use of a sample are 24 and 36 hours for on-site and off-site testing, respectively. A written waiver is required from the regulating authority for any holding time extension. Sampling guidance dictates that, where appropriate, aliquots for the analysis required in this protocol shall be split from the samples, containerized and immediately preserved, or analyzed as per 40 CFR Part 136. EPA approved test methods require that samples collected for metals analyses be preserved immediately after collection. Testing for the presence of total residual chlorine[1] (TRC) must be analyzed immediately or as soon as possible, for all effluent samples, prior to WET testing. TRC analysis may be performed on-site or by the toxicity testing laboratory and the samples must be dechlorinated, as necessary, using sodium thiosulfate

[1] For this protocol, total residual chlorine is synonymous with total residual oxidants.

prior to sample use for toxicity testing. If performed on site the results should be included on the chain of custody (COC) presented to WET laboratory.

Standard Methods for the Examination of Water and Wastewater describes dechlorination of samples (APHA, 1992). Dechlorination can be achieved using a ratio of 6.7 mg/L anhydrous sodium thiosulfate to reduce 1 mg/L chlorine. If dechlorination is necessary, a thiosulfate control consisting of the maximum concentration of thiosulfate used to dechlorinate the sample in the toxicity test control water must also be run in the WET test.

All samples submitted for chemical and physical analyses will be analyzed according to Section VI of this protocol. Grab samples must be used for pH, temperature, and total residual chlorine (as per 40 CFR Part 122.21).

All samples held for use beyond the day of sampling shall be refrigerated and maintained at a temperature range of 0-6^{o} C.

IV. DILUTION WATER

Samples of receiving water must be collected from a reasonably accessible location in the receiving water body immediately upstream of the permitted discharge's zone of influence. Avoid collection near areas of obvious road or agricultural runoff, storm sewers or other point source discharges and areas where stagnant conditions exist. EPA strongly urges that screening for toxicity be performed prior to the set up of a full, definitive toxicity test any time there is a question about the test dilution water's ability to achieve test acceptability criteria (TAC) as indicated in Section V of this protocol. The test dilution water control response will be used in the statistical analysis of the toxicity test data. All other control(s) required to be run in the test will be reported as specified in the Discharge Monitoring Report (DMR) Instructions, Attachment F, page 2,Test Results & Permit Limits.

The test dilution water must be used to determine whether the test met the applicable TAC. When receiving water is used for test dilution, an additional control made up of standard laboratory water (0% effluent) is required. This control will be used to verify the health of the test organisms and evaluate to what extent, if any, the receiving water itself is responsible for any toxic response observed.

If dechlorination of a sample by the toxicity testing laboratory is necessary a "sodium thiosulfate" control, representing the concentration of sodium thiosulfate used to adequately dechlorinate the sample prior to toxicity testing, must be included in the test.

If the use of alternate dilution water (ADW) is authorized, in addition to the ADW test control, the testing laboratory must, for the purpose of monitoring the receiving water, also run a receiving water control.

If the receiving water is found to be, or suspected to be toxic or unreliable, ADW of known quality with hardness similar to that of the receiving water may be substituted. Substitution is

species specific meaning that the decision to use ADW is made for each species and is based on the toxic response of that particular species. Substitution to an ADW is authorized in two cases. The first case is when repeating a test due to toxicity in the site dilution water requires an **immediate decision** for ADW use by the permittee and toxicity testing laboratory. The second is when two of the most recent documented incidents of unacceptable site dilution water toxicity require ADW use in future WET testing.

For the second case, written notification from the permittee requesting ADW use **and** written authorization from the permit issuing agency(s) is required **prior to** switching to a long-term use of ADW for the duration of the permit.

Written requests for use of ADW with supporting documentation must be sent electronically to the NPDES Applications Coordinator in EPA Water Division (WD) at the following email address:

R1NPDESReporting@epa.gov

Note: USEPA Region 1 retains the right to modify any part of the alternate dilution water policy stated in this protocol at any time. Any changes to this policy will be documented in the annual DMR posting.

See the EPA Region 1 website at: www.epa.gov/aboutepa/epa-region-1-new-england (click on NPDES, EPA Permit Attachments, Self-Implementing Alternate Dilution Water Guidance) for important details on alternate dilution water substitution requests.

V. TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

EPA Region 1 requires tests be performed using four replicates of each control and effluent concentration because the non-parametric statistical tests cannot be used with data from fewer replicates. The following tables summarize the accepted Americamysis and Menidia toxicity test conditions and test acceptability criteria:

EPA NEW ENGLAND EFFLUENT TOXICITY TEST CONDITIONS FOR THE MYSID, AMERICAMYSIS BAHIA 48 HOUR TEST[1]

1. Test type	48hr Static, non-renewal
2. Salinity	25ppt ± 10 percent for all dilutions by adding dry ocean salts
3. Temperature (^{o}C)	20^{o}C ± 1^{o}C or 25^{o}C ± 1^{o}C, temperature must not deviate by more than 3^{o}C during test
4. Light quality	Ambient laboratory illumination
5. Photoperiod	16 hour light, 8 hour dark
6. Test chamber size	250 ml (minimum)
7. Test solution volume	200 ml/replicate (minimum)
8. Age of test organisms	1-5 days, < 24 hours age range
9. No. Mysids per test chamber	10
10. No. of replicate test chambers per treatment	4
11. Total no. Mysids per test concentration	40
12. Feeding regime	Light feeding using concentrated Artemia naupli while holding prior to initiating the test
13. Aeration [2]	None
14. Dilution water	5-30 ppt, +/- 10%; Natural seawater, or deionized water mixed with artificial sea salts
15. Dilution factor	≥ 0.5
16. Number of dilutions [3]	5 plus a control. An additional dilution at the permitted effluent concentration (%

	effluent) is required if it is not included in the dilution series.
17. Effect measured	Mortality - no movement of body appendages on gentle prodding
18. Test acceptability	90% or greater survival of test organisms in control solution
19. Sampling requirements	For on-site tests, samples are used within 24 hours of the time that they are removed from the sampling device. For off-site tests, samples must be first used within 36 hours of collection.
20. Sample volume required	Minimum 1 liter for effluents and 2 liters for receiving waters

Footnotes:

[1] Adapted from EPA 821-R-02-012.

[2] If dissolved oxygen falls below 4.0 mg/L, aerate at rate of less than 100 bubbles/min. Routine D.O. checks are recommended.

[3] When receiving water is used for dilution, an additional control made up of standard laboratory dilution water (0% effluent) is required.

EPA NEW ENGLAND TOXICITY TEST CONDITIONS FOR THE INLAND SILVERSIDE, MENIDIA BERYLLINA 48 HOUR TEST[1]

1. Test Type	48 hr Static, non-renewal
2. Salinity	25 ppt ± 10 % by adding dry ocean salts
3. Temperature	20°C ± 1°C or 25°C ± 1°C, temperature must not deviate by more than 3°C during test
4. Light Quality	Ambient laboratory illumination
5. Photoperiod	16 hr light, 8 hr dark
6. Size of test vessel	250 mL (minimum)
7. Volume of test solution	200 mL/replicate (minimum)
8. Age of fish	9-14 days; 24 hr age range
9. No. fish per chamber	10 (not to exceed loading limits)
10. No. of replicate test vessels per treatment	4
11. Total no. organisms per concentration	40
12. Feeding regime	Light feeding using concentrated Artemia nauplii while holding prior to initiating the test
13. Aeration[2]	None
14. Dilution water	5-32 ppt, +/- 10% ; Natural seawater, or deionized water mixed with artificial sea salts.
15. Dilution factor	≥ 0.5
16. Number of dilutions[3]	5 plus a control. An additional dilution at the permitted concentration (% effluent) is required if it is not included in the dilution series.
17. Effect measured	Mortality-no movement on gentle prodding.

18. Test acceptability	90% or greater survival of test organisms in control solution.
19. Sampling requirements	For on-site tests, samples must be used within 24 hours of the time they are removed from the sampling device. Off-site test samples must be used within 36 hours of collection.
20. Sample volume required	Minimum 1 liter for effluents and 2 liters for receiving waters.

Footnotes:

[1] Adapted from EPA 821-R-02-012.

[2] If dissolved oxygen falls below 4.0 mg/L, aerate at rate of less than 100 bubbles/min. Routine D.O. checks recommended.

[3] When receiving water is used for dilution, an additional control made up of standard laboratory dilution water (0% effluent) is required.

V.1. Test Acceptability Criteria

If a test does not meet TAC the test must be repeated with fresh samples within 30 days of the initial test completion date.

V.2. Use of Reference Toxicity Testing

Reference toxicity test results and applicable control charts must be included in the toxicity testing report.

In general, if reference toxicity test results fall outside the control limits established by the laboratory for a specific test endpoint, a reason or reasons for this excursion must be evaluated, correction made and reference toxicity tests rerun as necessary as prescribed below.

If a test endpoint value exceeds the control limits at a frequency of more than one out of twenty then causes for the reference toxicity test failure must be examined and if problems are identified corrective action taken. The reference toxicity test must be repeated during the same month in which the exceedance occurred.

If two consecutive reference toxicity tests fall outside control limits, the possible cause(s) for the exceedance must be examined, corrective actions taken and a repeat of the reference toxicity test must take place immediately. Actions taken to resolve the problem must be reported.

V.2.a. Use of Concurrent Reference Toxicity Testing

In the case where concurrent reference toxicity testing is required due to a low frequency of testing with a particular method, if the reference toxicity test results fall slightly outside of laboratory established control limits, but the primary test met the TAC, the results of the primary test will be considered acceptable. However, if the results of the concurrent test fall well outside the established **upper** control limits i.e. ≥3 standard deviations for IC25s and LC50 values and ≥ two concentration intervals for NOECs or NOAECs, and even though the primary test meets TAC, the primary test will be considered unacceptable and must be repeated.

VI. CHEMICAL ANALYSIS

At the beginning of the static acute test, pH, salinity, and temperature must be measured at the beginning and end of each 24 hour period in each dilution and in the controls. The following chemical analyses shall be performed for each sampling event.

Parameter	Effluent	Diluent	Minimum Level for effluent [*1] (mg/L)
pH	x	x	---
Salinity	x	x	ppt(o/oo)
Total Residual Chlorine [*2]	x	x	0.02
Total Solids and Suspended Solids	x	x	---
Ammonia	x	x	0.1
Total Organic Carbon	x	x	0.5
Total Metals			
Cd	x	x	0.0005
Pb	x	x	0.0005
Cu	x	x	0.003
Zn	x	x	0.005
Ni	x	x	0.005

Superscript:

[*1] These are the minimum levels for effluent (fresh water) samples. Tests on diluents (marine waters) shall be conducted using the Part 136 methods that yield the lowest MLs.

[*2] Either of the following methods from the 18th Edition of the APHA Standard Methods for the Examination of Water and Wastewater must be used for these analyses:

-Method 4500-Cl E Low Level Amperometric Titration (the preferred method);
-Method 4500-CL G DPD Photometric Method.

VII. TOXICITY TEST DATA ANALYSIS

LC50 Median Lethal Concentration

An estimate of the concentration of effluent or toxicant that is lethal to 50% of the test organisms during the time prescribed by the test method.

Methods of Estimation:

- Probit Method
- Spearman-Karber
- Trimmed Spearman-Karber
- Graphical

See flow chart in Figure 6 on page 73 of EPA 821-R-02-012 for appropriate method to use on a given data set.

No Observed Acute Effect Level (NOAEL)

See flow chart in Figure 13 on page 87 of EPA 821-R-02-012.

VIII. TOXICITY TEST REPORTING

A report of results must include the following:

- Toxicity Test summary sheet(s) (Attachment F to the DMR Instructions) which includes:
    - Facility name
    - NPDES permit number
    - Outfall number
    - Sample type
    - Sampling method
    - Effluent TRC concentration
    - Dilution water used
    - Receiving water name and sampling location
    - Test type and species
    - Test start date
    - Effluent concentrations tested (%) and permit limit concentration
    - Applicable reference toxicity test date and whether acceptable or not
    - Age, age range and source of test organisms used for testing
    - Results of TAC review for all applicable controls
    - Permit limit and toxicity test results
    - Summary of any test sensitivity and concentration response evaluation that was conducted

Please note: The NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs) are available on EPA's website at: www.epa.gov/compliance/discharge-monitoring-reports-avoiding-common-mistakes

In addition to the summary sheets the report must include:

- A brief description of sample collection procedures;
- Chain of custody documentation including names of individuals collecting samples, times and dates of sample collection, sample locations, requested analysis and lab receipt with time and date received, lab receipt personnel and condition of samples upon receipt at the lab(s);
- Reference toxicity test control charts;
- All sample chemical/physical data generated, including minimum levels (MLs) and analytical methods used;
- All toxicity test raw data including daily ambient test conditions, toxicity test chemistry, sample dechlorination details as necessary, bench sheets and statistical analysis;
- A discussion of any deviations from test conditions; and
- Any further discussion of reported test results, statistical analysis and concentration-response relationship and test sensitivity review per species per endpoint.

Attachment B

Logan International Airport NPDES Permit - MA0000787
2023 NPDES Co-Permittees

Contact	Organization
Gabriel Figueiredo	ABM Aviation, Inc.
Tristan J. Pepin	Aero Mag 2000 BOS LLC
Ryan Faiella	Aero Snow Removal Corporation
Christopher Kaplan	American Airlines, Inc.
Teresa Riner	British Airways
Jose Calo	Cape Air
Theresa Manumbu	Delta Air Lines, Inc.
Sherry Wester	Federal Express
Shawn Theriault	Ground Services International, dba dNata
Andy Matusun	Jet Blue Airways
John Collins	Nouria Energy Corp./Shell Station
Keith Hayes	Paul Revere Transportation LLC/ Green Bus Depot
William Rice	Prime Flight
Gordana Maric	Signature Flight Support
Beth Stockert	Southwest Airlines Co.
John Lyle	Swissport Fueling/BosFuel

Attachment B

Logan International Airport NPDES Permit - MA0000787
2023 NPDES Co-Permittees

Contact	Organization
Hayatullah Khairkhwah	Swissport North America, Inc.
Eirika Gudjonsdottir	Triangle Aviation Services
Pharoah Salomon	United Airlines
Taniya Brandon	United Parcel Service

NPDES PART II STANDARD CONDITIONS
(April 26, 2018)[1]

TABLE OF CONTENTS

[1] Updated July 17, 2018 to fix typographical errors.

A. GENERAL REQUIREMENTS

1. Duty to Comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA or Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

a. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

b. Penalties for Violations of Permit Conditions: The Director will adjust the civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (83 Fed. Reg. 1190-1194 (January 10, 2018) and the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note. See Pub. L.114-74, Section 701 (Nov. 2, 2015)). These requirements help ensure that EPA penalties keep pace with inflation. Under the above-cited 2015 amendments to inflationary adjustment law, EPA must review its statutory civil penalties each year and adjust them as necessary.

(1) Criminal Penalties

(a) *Negligent Violations.* The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than $2,500 nor more than $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation or by imprisonment of not more than 2 years, or both.

(b) *Knowing Violations.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

(c) *Knowing Endangerment.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than $250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing

endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

(d) *False Statement.* The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(2) *Civil Penalties*. The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act, the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

(3) *Administrative Penalties*. The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty as follows:

(a) *Class I Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act, the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

(b) *Class II Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

2. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit

condition.

3. Duty to Provide Information

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from responsibilities, liabilities or penalties to which the Permittee is or may be subject under Section 311 of the CWA, or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

5. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

6. Confidentiality of Information

a. In accordance with 40 C.F.R. Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 C.F.R. Part 2 (Public Information).

b. Claims of confidentiality for the following information will be denied:

(1) The name and address of any permit applicant or Permittee;
(2) Permit applications, permits, and effluent data.

c. Information required by NPDES application forms provided by the Director under 40 C.F.R. § 122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

7. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. The Permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

8. State Authorities

Nothing in Parts 122, 123, or 124 precludes more stringent State regulation of any activity

covered by the regulations in 40 C.F.R. Parts 122, 123, and 124, whether or not under an approved State program.

9. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Not a Defense

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Duty to Mitigate

The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Bypass

a. Definitions

(1) *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility.

(2) *Severe property damage* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. *Bypass not exceeding limitations.* The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this Section.

c. Notice

(1) *Anticipated bypass*. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass. As of December 21, 2020 all notices submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.

(2) *Unanticipated bypass*. The Permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (24-hour notice). As of December 21, 2020 all notices submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or required to do so by law.

d. *Prohibition of bypass.*

(1) Bypass is prohibited, and the Director may take enforcement action against a Permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(c) The Permittee submitted notices as required under paragraph 4.c of this Section.

(2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 4.d of this Section.

5. Upset

a. *Definition*. *Upset* means an exceptional incident in which there is an unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or

improper operation.

b. *Effect of an upset.* An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph B.5.c. of this Section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. *Conditions necessary for a demonstration of upset.* A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the Permittee can identify the cause(s) of the upset;
(2) The permitted facility was at the time being properly operated; and
(3) The Permittee submitted notice of the upset as required in paragraph D.1.e.2.b. (24-hour notice).
(4) The Permittee complied with any remedial measures required under B.3. above.

d. *Burden of proof.* In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.

C. MONITORING REQUIREMENTS

1. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

b. Except for records of monitoring information required by this permit related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least 5 years (or longer as required by 40 C.F.R. § 503), the Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

c. Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;
(2) The individual(s) who performed the sampling or measurements;
(3) The date(s) analyses were performed;
(4) The individual(s) who performed the analyses;
(5) The analytical techniques or methods used; and
(6) The results of such analyses.

d. Monitoring must be conducted according to test procedures approved under 40 C.F.R. § 136 unless another method is required under 40 C.F.R. Subchapters N or O.

e. The Clean Water Act provides that any person who falsifies, tampers with, or

knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

2. Inspection and Entry

The Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

D. REPORTING REQUIREMENTS

1. Reporting Requirements

a. *Planned Changes*. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 C.F.R. § 122.29(b); or

(2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements at 40 C.F.R. § 122.42(a)(1).

(3) The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. *Anticipated noncompliance*. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. *Transfers.* This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Clean Water Act. *See* 40 C.F.R. § 122.61; in some cases, modification or revocation and reissuance is mandatory.

d. *Monitoring reports*. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices. As of December 21, 2016 all reports and forms submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or if required to do so by State law.

(2) If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 C.F.R. § 136, or another method required for an industry-specific waste stream under 40 C.F.R. Subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

(3) Calculations for all limitations which require averaging or measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

e. *Twenty-four hour reporting.*

(1) The Permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written report shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. As of December 21, 2020 all

reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require Permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

(2) The following shall be included as information which must be reported within 24 hours under this paragraph.

(a) Any unanticipated bypass which exceeds any effluent limitation in the permit. *See* 40 C.F.R. § 122.41(g).
(b) Any upset which exceeds any effluent limitation in the permit.
(c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. *See* 40 C.F.R. § 122.44(g).

(3) The Director may waive the written report on a case-by-case basis for reports under paragraph D.1.e. of this Section if the oral report has been received within 24 hours.

f. *Compliance Schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

g. *Other noncompliance.* The Permittee shall report all instances of noncompliance not reported under paragraphs D.1.d., D.1.e., and D.1.f. of this Section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph D.1.e. of this Section. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in paragraph D.1.e. and the applicable required data in Appendix A to 40 C.F.R. Part 127. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), §122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require Permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this Section.

h. *Other information.* Where the Permittee becomes aware that it failed to submit any

relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

i. *Identification of the initial recipient for NPDES electronic reporting data*. The owner, operator, or the duly authorized representative of an NPDES-regulated entity is required to electronically submit the required NPDES information (as specified in Appendix A to 40 C.F.R. Part 127) to the appropriate initial recipient, as determined by EPA, and as defined in 40 C.F.R. § 127.2(b). EPA will identify and publish the list of initial recipients on its Web site and in the FEDERAL REGISTER, by state and by NPDES data group (see 40 C.F.R. § 127.2(c) of this Chapter). EPA will update and maintain this listing.

2. Signatory Requirement

a. All applications, reports, or information submitted to the Director shall be signed and certified. *See* 40 C.F.R. §122.22.

b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

3. Availability of Reports.

Except for data determined to be confidential under paragraph A.6. above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Director. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA.

E. DEFINITIONS AND ABBREVIATIONS

1. General Definitions

For more definitions related to sludge use and disposal requirements, see EPA Region 1's NPDES Permit Sludge Compliance Guidance document (4 November 1999, modified to add regulatory definitions, April 2018).

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all, State, interstate, and federal standards and limitations to which a "discharge," a "sewage sludge use or disposal practice," or a related activity is subject under the CWA, including "effluent limitations," water quality standards, standards of performance, toxic effluent standards or prohibitions, "best management practices," pretreatment standards, and "standards for sewage sludge use or disposal" under Sections 301, 302, 303, 304, 306, 307, 308, 403 and 405 of the CWA.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in

"approved States," including any approved modifications or revisions.

Approved program or *approved State* means a State or interstate program which has been approved or authorized by EPA under Part 123.

Average monthly discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

Average weekly discharge limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

Best Management Practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Bypass see B.4.a.1 above.

C-NOEC or *"Chronic (Long-term Exposure Test) – No Observed Effect Concentration" means* the highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specified time of observation.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 C.F.R. § 501.2, required to have an approved pretreatment program under 40 C.F.R. § 403.8 (a) (including any POTW located in a State that has elected to assume local program responsibilities pursuant to 40 C.F.R. § 403.10 (e)) and any treatment works treating domestic sewage, as defined in 40 C.F.R. § 122.2, classified as a Class I sludge management facility by the EPA Regional Administrator, or, in the case of approved State programs, the Regional Administrator in conjunction with the State Director, because of the potential for its sewage sludge use or disposal practice to affect public health and the environment adversely.

Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

Continuous discharge means a "discharge" which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or similar activities.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483and Public Law 97-117, 33 U.S.C. 1251 *et seq*.

CWA and regulations means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

Daily Discharge means the "discharge of a pollutant" measured during a calendar day or any

other 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Direct Discharge means the "discharge of a pollutant."

Director means the Regional Administrator or an authorized representative. In the case of a permit also issued under Massachusetts' authority, it also refers to the Director of the Division of Watershed Management, Department of Environmental Protection, Commonwealth of Massachusetts.

Discharge

(a) When used without qualification, *discharge* means the "discharge of a pollutant."

(b) As used in the definitions for "interference" and "pass through," *discharge* means the introduction of pollutants into a POTW from any non-domestic source regulated under Section 307(b), (c) or (d) of the Act.

Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by Permittees. DMRs must be used by "approved States" as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Discharge of a pollutant means:

(a) Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or

(b) Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharger."

Effluent limitation means any restriction imposed by the Director on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from "point sources" into "waters of the United States," the waters of the "contiguous zone," or the ocean.

Effluent limitation guidelines means a regulation published by the Administrator under section 304(b) of CWA to adopt or revise "effluent limitations."

Environmental Protection Agency ("EPA") means the United States Environmental Protection

Agency.

Grab Sample means an individual sample collected in a period of less than 15 minutes.

Hazardous substance means any substance designated under 40 C.F.R. Part 116 pursuant to Section 311 of CWA.

Incineration is the combustion of organic matter and inorganic matter in sewage sludge by high temperatures in an enclosed device.

Indirect discharger means a nondomestic discharger introducing "pollutants" to a "publicly owned treatment works."

Interference means a discharge (see definition above) which, alone or in conjunction with a discharge or discharges from other sources, both:

(a) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

(b) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resources Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SDWA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile.

Land application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for agricultural purposes or for treatment and disposal.

LC_{50} means the concentration of a sample that causes mortality of 50% of the test population at a specific time of observation. The LC_{50} = 100% is defined as a sample of undiluted effluent.

Maximum daily discharge limitation means the highest allowable "daily discharge."

Municipal solid waste landfill (MSWLF) unit means a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 C.F.R. § 257.2. A MSWLF unit also may receive other types of RCRA Subtitle D wastes, such as commercial solid waste, nonhazardous sludge, very small quantity generator waste and industrial solid waste. Such a landfill may be

publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit or a lateral expansion. A construction and demolition landfill that receives residential lead-based paint waste and does not receive any other household waste is not a MSWLF unit.

Municipality

(a) When used without qualification *municipality* means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of CWA.

(b) As related to sludge use and disposal, *municipality* means a city, town, borough, county, parish, district, association, or other public body (including an intermunicipal Agency of two or more of the foregoing entities) created by or under State law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge management; or a designated and approved management Agency under Section 208 of the CWA, as amended. The definition includes a special district created under State law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity, or an integrated waste management facility as defined in Section 201 (e) of the CWA, as amended, that has as one of its principal responsibilities the treatment, transport, use or disposal of sewage sludge.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the CWA. The term includes an "approved program."

New Discharger means any building, structure, facility, or installation:

(a) From which there is or may be a "discharge of pollutants;"

(b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;

(c) Which is not a "new source;" and

(d) Which has never received a finally effective NPDES permit for discharges at that "site."

This definition includes an "indirect discharger" which commences discharging into "waters of the United States" after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a "site" for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a "site" under EPA's permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Director in the issuance of a final permit to be in an area of biological concern. In determining whether an area is an area of biological concern, the Director shall consider the factors specified in 40 C.F.R. §§ 125.122 (a) (1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a "new discharger" only for the duration of its discharge in an area of biological concern.

New source means any building, structure, facility, or installation from which there is or may be a "discharge of pollutants," the construction of which commenced:

(a) After promulgation of standards of performance under Section 306 of CWA which are applicable to such source, or

(b) After proposal of standards of performance in accordance with Section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

NPDES means "National Pollutant Discharge Elimination System."

Owner or operator means the owner or operator of any "facility or activity" subject to regulation under the NPDES programs.

Pass through means a Discharge (see definition above) which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved State" to implement the requirements of Parts 122, 123, and 124. "Permit" includes an NPDES "general permit" (40 C.F.R § 122.28). "Permit" does not include any permit which has not yet been the subject of final agency action, such as a "draft permit" or "proposed permit."

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Person who prepares sewage sludge is either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

pH means the logarithm of the reciprocal of the hydrogen ion concentration measured at 25° Centigrade or measured at another temperature and then converted to an equivalent value at 25° Centigrade.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (see 40 C.F.R. § 122.3).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials

(except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq*.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

(a) Sewage from vessels; or

(b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes is approved by the authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

Primary industry category means any industry category listed in the NRDC settlement agreement (*Natural Resources Defense Council et al. v. Train*, 8 E.R.C. 2120 (D.D.C. 1976), *modified* 12 E.R.C. 1833 (D.D.C. 1979)); also listed in Appendix A of 40 C.F.R. Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operator is not the operator of the treatment works and (b) not a "POTW."

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works (POTW) means a treatment works as defined by Section 212 of the Act, which is owned by a State or municipality (as defined by Section 504(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in Section 502(4) of the Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

Regional Administrator means the Regional Administrator, EPA, Region I, Boston, Massachusetts.

Secondary industry category means any industry which is not a "primary industry category."

Septage means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Sewage Sludge means any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced waste water treatment, scum, septage, portable toilet pumpings, type III marine sanitation device pumpings (33 C.F.R. Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

Sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired.

Sewage sludge unit is land on which only sewage sludge is placed for final disposal. This does

not include land on which sewage sludge is either stored or treated. Land does not include waters of the United States, as defined in 40 C.F.R. § 122.2.

Sewage sludge use or disposal practice means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

Significant materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substance designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

Significant spills includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 C.F.R. §§ 110.10 and 117.21) or Section 102 of CERCLA (*see* 40 C.F.R. § 302.4).

Sludge-only facility means any "treatment works treating domestic sewage" whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to section 405(d) of the CWA, and is required to obtain a permit under 40 C.F.R. § 122.1(b)(2).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an Indian Tribe as defined in the regulations which meets the requirements of 40 C.F.R. § 123.31.

Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm water discharge associated with industrial activity means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant.

Surface disposal site is an area of land that contains one or more active sewage sludge units.

Toxic pollutant means any pollutant listed as toxic under Section 307(a)(1) or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing Section 405(d) of the CWA.

Treatment works treating domestic sewage means a POTW or any other sewage sludge or waste water treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices.

For purposes of this definition, "domestic sewage" includes waste and waste water from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Director may designate any person subject to the standards for sewage sludge use and

disposal in 40 C.F.R. Part 503 as a "treatment works treating domestic sewage," where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 C.F.R. Part 503.

Upset see B.5.a. above.

Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Waste pile or *pile* means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

Waters of the United States or waters of the U.S. means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(b) All interstate waters, including interstate "wetlands;"

(c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands", sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

    (1) Which are or could be used by interstate or foreign travelers for recreational or other purpose;

    (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

    (3) Which are used or could be used for industrial purposes by industries in interstate commerce;

(d) All impoundments of waters otherwise defined as waters of the United States under this definition;

(e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;

(f) The territorial sea; and

(g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 C.F.R. § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland.

Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test.

*Zone of Initial Dilution (*ZID) means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports, provided that the ZID may not be larger than allowed by mixing zone restrictions in applicable water quality standards.

2. Commonly Used Abbreviations

BOD	Five-day biochemical oxygen demand unless otherwise specified
CBOD	Carbonaceous BOD
CFS	Cubic feet per second
COD	Chemical oxygen demand
Chlorine	
Cl_2	Total residual chlorine
TRC	Total residual chlorine which is a combination of free available chlorine (FAC, see below) and combined chlorine (chloramines, etc.)
TRO	Total residual chlorine in marine waters where halogen compounds are present
FAC	Free available chlorine (aqueous molecular chlorine, hypochlorous acid, and hypochlorite ion)
Coliform	
Coliform, Fecal	Total fecal coliform bacteria
Coliform, Total	Total coliform bacteria
Cont.	Continuous recording of the parameter being monitored, i.e. flow, temperature, pH, etc.
Cu. M/day or M^3/day	Cubic meters per day
DO	Dissolved oxygen

kg/day	Kilograms per day
lbs/day	Pounds per day
mg/L	Milligram(s) per liter
mL/L	Milliliters per liter
MGD	Million gallons per day
Nitrogen	
Total N	Total nitrogen
NH_3-N	Ammonia nitrogen as nitrogen
NO_3-N	Nitrate as nitrogen
NO_2-N	Nitrite as nitrogen
NO_3-NO_2	Combined nitrate and nitrite nitrogen as nitrogen
TKN	Total Kjeldahl nitrogen as nitrogen
Oil & Grease	Freon extractable material
PCB	Polychlorinated biphenyl
Surfactant	Surface-active agent
Temp. °C	Temperature in degrees Centigrade
Temp. °F	Temperature in degrees Fahrenheit
TOC	Total organic carbon
Total P	Total phosphorus
TSS or NFR	Total suspended solids or total nonfilterable residue
Turb. or Turbidity	Turbidity measured by the Nephelometric Method (NTU)
µg/L	Microgram(s) per liter
WET	"Whole effluent toxicity"
ZID	Zone of Initial Dilution