# DRAFT

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended,(33 U.S.C. §§1251 et seq.;) the "CWA", and the Massachusetts Clean Waters Act, as amended,(MGL Chap.21,§§26-53),

**Massachusetts Port Authority and the Co-Permittees of Logan International Airport**
**c/o MASSACHUSETTS PORT AUTHORITY**
**ENVIRONMENTAL MANAGEMENT UNIT**
**ONE HARBORSIDE DRIVE, SUITE 200S**
**EAST BOSTON, MASSACHUSETTS 02128-2909**

are authorized to discharge from all storm water Outfalls 001, 002, 003, 004 and 005 and storm water discharges A-1 through A-44 to receiving waters named:

**Boston Harbor, Boston Inner Harbor and Winthrop Bay**

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

This permit shall become effective 60 days after signature.

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

This permit supersedes the permit issued on March 1, 1978.

This permit consists of 43 pages and **Attachments A, B and C** in Part I, including monitoring requirements, etc., and 27 pages in Part II including General Conditions and Definitions.

Signed this day of



Linda M. Murphy, Director
Office of Ecosystem Protection
Environmental Protection Agency
Region I
Boston, MA

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

## Outfall Nomenclature

Below is a summary of the location in the Permit where the tables of the effluent limits and monitoring requirements can be found according to section of the Permit and page number. For reporting purposes, each numbered outfall was given letter designations to show what conditions the outfalls were to be sampled: A - for wet weather, B for deicing episodes, and C for dry weather. Additionally, letters were designated for the sampling of storm water from the above-ground storage tanks and fuel loading rack area (D) and the set-up tank (E) before being discharged to an internal outfall for the Outfall 001 storm water sewer system.

| Outfall Name and Number | Wet Weather | Deicing Episode | Dry Weather | Fuel Loading Rack |
|---|---|---|---|---|
| **North Outfall 001** | **001A** (I.A.1, page 3) | **001B** (I.A.3, page 7) | **001C** (I.A.7, page 15) | **001D & 001E** (I.A.4, page 9) |
| **West Outfall 002** | **002A** (I.A.1, page 3) | **002B** (I.A.3, page 7) | **002C** (I.A.7, page 15) | ------ |
| **Porter Street Outfall 003** | **003A** (I.A.2, page 5) | **003B** (I.A.3, page 7) | **003C** (I.A.8, page 17) | ------ |
| **Maverick Street Outfall 004** | **004A** (I.A.1, page 3) | **004B** (I.A.3, page 7) | **004C** (I.A.7, Page 15) | ------ |
| **Northwest Outfall 005** | **005A** (I.A.5, page 11) | ------ | ------ | ------ |
| **Runway/Perimeter Outfalls (A-1 through A-44) 006** | **006A** (I.A.5, page 11) | **006B** (I.A.6, page 13) | ------ | ------ |

PART I. A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - **WET WEATHER**

1. During the period beginning on the effective date and lasting through the expiration date, the Permittee and Co-Permittees are authorized to discharge storm water associated **with industrial activity** from vehicle maintenance areas, equipment cleaning areas and deicing activities from outfalls **001A (North Outfall)**, **002A (West Outfall), and 004A (Maverick Street Outfall)**. Such discharges shall be limited and monitored by Massport as specified below:

| Effluent Characteristic | Discharge Limitations | | Monitoring Requirements | |
|---|---|---|---|---|
| | Average Monthly | Maximum Daily | Measurement Frequency | Sample Type |
| Flow Rate, MGD [2] | Report | Report | Continuously | Recorder |
| pH, Range, standard units [1,2] | 6.5 to 8.5 | | Continuously | Recorder |
| Oil & Grease, mg/l [3] | ---- | 15 | 1/Month | Grab |
| TSS, mg/l [3] | Report | 100 | 1/Month | Grab |
| Benzene, ug/l [3] | Report | 51 | 1/Month | Grab |
| Surfactant, mg/l [3] | Report | Report | 1/Month | Grab |
| Fecal Coliform, cfu/100 ml [3] | Report | Report | 1/Month | Grab |
| Enterococcus, cfu/100 ml [3] | Report | Report | 1/Month | Grab |
| Polynuclear Aromatic Hydrocarbons (PAHs), ug/l [4] | ---- | Report Total | 1/Quarter | Grab |
| Benzo(a)anthracene | ---- | Report | 1/Quarter | Grab |
| 1) Benzo(a)pyrene | ---- | Report | 1/Quarter | Grab |
| 2) Benzo(b)fluoranthene | ---- | Report | 1/Quarter | Grab |
| 3) Benzo(k)fluoranthene | ---- | Report | 1/Quarter | Grab |
| 4) Chrysene | ---- | Report | 1/Quarter | Grab |
| 5) Dibenzo(a,h)anthracene | ---- | Report | 1/Quarter | Grab |
| 6) Indeno(1,2,3-cd)pyrene | ---- | Report | 1/Quarter | Grab |
| 7) Naphthalene | ---- | Report | 1/Quarter | Grab |
| 8) | | | | |

Footnote for Table at I.A.1:

1. Required for State Certification.

2. Flow rates and pH shall be continuously monitored at a representative location to measure the flow from the three of the four major outfalls 001, 002 and 004. On a monthly basis, Logan shall report the average monthly flow value and maximum daily flow value for each of the three monitoring locations in gallons per day (gpd) for flow rate and the minimum value and maximum value of the pH reported as Standard Units (SU) on Discharge Monitoring Report Forms (DMRs) before the 15th of the following month. The monitoring and reporting requirements for the outfalls shall become effective in 90 days from the effective date to allow for purchasing and installing continuous monitoring equipment.

3. A monthly grab sample shall be taken during wet weather conditions at a representative location of the point of discharge. Wet weather conditions mean that the samples must be taken during 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. On a monthly basis, Massport shall report on DMRs the maximum daily value of the testing results in milligrams per liter (mg/l), except for benzene which shall be reported in micrograms per liter (ug/l), and fecal coliform and enterococcus which shall be reported in colony forming units per 100 milliliters (cfu/100 ml), before the 15th of the following month. 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 and are in accordance with the procedures in 40 C.F.R. §136.

4. A quarterly grab sample shall be taken during wet weather conditions at a representative location of the point of discharge. On a quarterly basis, Massport shall report on DMRs a sum of the maximum daily values of the eight PAHs in milligrams per liter (ug/l) detected before the 15th of the following month at the end of a quarter (Example: Report on April 15 for the January through March quarter). Additionally, Massport shall report on DMRs the maximum daily value for each of the eight PAHs. 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 and are in accordance with the procedures in 40 C.F.R. §136.

**WET WEATHER**

2. During the period beginning on the effective date and lasting through the expiration date, the Permittee and Co-Permittees are authorized to discharge storm water associated **with industrial activity** from vehicle maintenance areas, equipment cleaning areas and deicing activities from **Outfall 003A (Porter Street Outfall)**. Such discharges shall be limited and monitored by Massport as specified below:

| Effluent Characteristic [5] | Discharge Limitations | | Monitoring Requirements | |
|---|---|---|---|---|
| | Average Monthly | Maximum Daily | Measurement Frequency | Sample Type |
| Flow Rate, MGD [7] | Report | Report | 1/Month | Grab |
| pH, Range, standard units [6,7] | Report | | 1/Month | Grab |
| Oil & Grease, mg/l [8] | ---- | Report | 1/Month | Grab |
| TSS, mg/l [8] | Report | Report | 1/Month | Grab |
| Benzene, ug/l [8] | Report | Report | 1/Month | Grab |
| Surfactant, mg/l [8] | Report | Report | 1/Month | Grab |
| Fecal Coliform, cfu/100 ml [8] | Report | Report | 1/Month | Grab |
| Enterococcus, cfu/100 ml [8] | Report | Report | 1/Month | Grab |
| Polynuclear Aromatic Hydrocarbons (PAHs), ug/l [9] | ---- | Report Total | 1/Quarter | Grab |
| Benzo(a)anthracene | ---- | Report | 1/Quarter | Grab |
| 1) Benzo(a)pyrene | ---- | Report | 1/Quarter | Grab |
| 2) Benzo(b)fluoranthene | ---- | Report | 1/Quarter | Grab |
| 3) Benzo(k)fluoranthene | ---- | Report | 1/Quarter | Grab |
| 4) Chrysene | ---- | Report | 1/Quarter | Grab |
| 5) Dibenzo(a,h)anthracene | ---- | Report | 1/Quarter | Grab |
| 6) Indeno(1,2,3-cd)pyrene | ---- | Report | 1/Quarter | Grab |
| 7) Naphthalene | ---- | Report | 1/Quarter | Grab |
| 8) | | | | |

Footnote for Table at I.A.1:

5. Massport shall monitor the storm water at Outfall 003A for the listed pollutants and report the average results on Discharge Monitoring Reports (DMRs). Massport shall develop sampling locations to get a representative sample of the Porter Street discharge area in accordance with the Porter Street Monitoring Plan that will be developed according to Section B.12, below, of the Best Management Practices Plan within 90 days of the effective date of this Permit.

6. Required for State Certification.

7. Flow rates and pH shall be monitored and reported on a monthly basis. Massport shall report the average monthly flow value and maximum daily flow value from the three monitoring locations in gallons per day (gpd) for flow rate on Discharge Monitoring Report Forms (DMRs) before the 15th of the following month. Massport shall estimate the flow rate at least once a month at each of the sampling locations established in the Porter Street Monitoring Plan. Massport shall report the sum of the maximum daily flow rates at the sampling locations as the maximum daily flow value. Massport shall report the minimum value and maximum value of the pH reported as Standard Units (SU) on DMRs before the 15th of the following month. Massport shall take a grab sample at each sampling location and measure for pH. Massport shall report the minimum and maximum pH readings from the sampling locations.

8. A monthly grab sample shall be taken during wet weather conditions at a representative location of the point of discharge. On a monthly basis, Massport shall report on DMRs the average monthly value (an average of all locations, except O&G) and a maximum daily value (the maximum value from all locations) of the testing results in milligrams per liter (mg/l), except for benzene which shall be reported in micrograms per liter (ug/l), and fecal coliform and enterococcus which shall be reported in colony forming units per 100 milliliters (cfu/100 ml), before the 15th of the following month. 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 and are in accordance with the procedures in 40 C.F.R. §136.

9. A quarterly grab sample shall be taken during wet weather conditions from the monitoring locations developed in the Porter Street Monitoring Plan. On a quarterly basis, Massport shall report on DMRs the maximum daily value (the maximum from all locations) for all PAHs analyzed for (sum of all PAHs analyzed for) in milligrams per liter (ug/l) before the 15th of the following month at the end of a quarter (Example: Report on April 15 for the January through March quarter). Additionally, Massport shall report on DMRs the maximum daily value for each of the eight PAHs. 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 and are in accordance with the procedures in 40 C.F.R. §136.

**DEICING EPISODES**

3. During the period beginning on the effective date and lasting through the expiration date, the Permittee and Co-Permittees are authorized to discharge storm water associated **with industrial activity** from plane and pavement deicing activities during a wet weather deicing episode from outfalls **001B (North Outfall)**, **002B (West Outfall), Outfall 003B and Outfall 004B (Maverick Street Outfall)**. Such discharges shall be limited and monitored by Massport as specified below:

**Monitor November through April only (Icing Season):**

| Effluent Characteristic | Discharge Limitations | | Monitoring Requirements | |
|---|---|---|---|---|
| | Average Monthly | Maximum Daily | Measurement Frequency | Sample Type |
| Ethylene Glycol, Total, mg/l [10] | ----- | Report | 2/Deicing Season (DS) | Grab |
| Propylene Glycol, Total, mg/l [10] | ----- | Report | 2/DS | Grab |
| BOD5, mg/l [10] | ----- | Report | 2/DS | Grab |
| COD, mg/l [10] | ----- | Report | 2/DS | Grab |
| Total Ammonia Nitrogen, mg/l of N [10] | ----- | Report | 2/DS | Grab |
| Nonylphenol, ug/l [10] | ----- | Report | 2/DS | Grab |
| Tolyltriazole, ug/l [10] | ----- | Report | 2/DS | Grab |
| Whole Effluent Toxicity (WET) [11] | ---- | Report | 2nd & 4th Year DS | Grab |

Footnotes for Table at I.A.2:

10. Massport shall gather a grab sample at each major outfall (001, 002, 003 and 004) twice each deicing season during separate deicing episodes. The deicing season is from November of a year to April of the following year. Samples shall be taken during a wet weather deicing episode. A wet weather deicing episode is defined as when deicing agents are being used on passenger planes owned by the major airlines during a storm event that produces greater than 0.1 inches of precipitation in magnitude (or the equivalent in snow fall on a mass basis) and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rain fall) storm event. Massport shall report on DMRs the results of the two monitoring events on or before May 15 after the icing season. 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 and are in accordance with the procedures in 40 C.F.R. §136. The monitoring and reporting requirements for the Outfall 003B shall become effective in 90 days from the effective date of this permit to allow for the development and implementation of the Porter Street Monitoring Plan. For each parameter Massport shall report the average results of the outfalls sampled over the two deicing episodes as the average monthly and maximum results for each outfall as the maximum daily on DMRs for Outfalls 001B, 002B, 003B and 004B. Copies of the laboratory results from the two deicing episodes per deicing season shall be submitted with the DMRs in May.

11. Massport shall perform marine chronic and modified acute toxicity tests at Outfall 001 once during the second year of the effective date of this Permit and the fourth year. The grab samples shall be gathered during a wet weather deicing episode. The test results must establish a chronic no observed effects concentration (C-NOEC) and acute concentration of effluent that is lethal to 50 percent of the exposed organisms ($LC_{50}$). The testing shall be performed in accordance with test procedures and protocols in Permit Attachment A, which specifies the Inland Silverside (Menidia beryllina) Larval Growth and Survival Test and the Sea Urchin (Arabacia punctulata) 1 Hour Fertilization Test. Massport shall submit the Whole Effluent Toxicity lab report and report the C-NOEC and the $LC_{50}$ from the results of WET testing using The Toxicity Test Summary Sheet (Attachment F of the EPA-Region I NPDES Permit Program Instructions for the Discharge Monitoring Report Forms). The report and summary sheet shall be submitted before May 15th after the deicing season. Massport shall sample and report the results as Outfall 001B.

**INTERNAL OUTFALLS FOR OUTFALL 001**

4. During the period beginning on the effective date and lasting through the expiration date, the Permittee and Co-Permittees are authorized to discharge storm water associated **with industrial activity** from accumulated storm water inside the Aboveground Storage Tanks berms, other bermed areas in the fuel farm area, and Fuel Loading Rack Area and storm water from hydrant vaults and pits stored in the Set-up Tank from outfalls **001D (North Outfall for Aboveground Storage Tanks and Fuel Loading Rack Area) and 001E (North Outfall for Set-up Tank)**. Such discharges shall be limited and monitored by the contractor operating the Centralized Fuel Farm as specified below:

| Effluent Characteristic | Discharge Limitations | | Monitoring Requirements | |
|---|---|---|---|---|
| | Average Monthly | Maximum Daily | Measurement Frequency | Sample Type |
| Quantity, Gallons [12] | Report | Report | Before Discharging | Estimate |
| pH, Range, standard units [12] | 6.5 to 8.5 | | Before Discharging | Grab |
| Oil & Grease, mg/l [12] | ---- | 15 | Before Discharging | Grab |
| TSS, mg/l [12] | Report | 100 | Before Discharging | Grab |
| Benzene, ug/l [12] | Report | 51 | Before Discharging | Grab |

Footnote for Table at I.A.3:

12. A grab sample shall be taken at the above ground storage tank bermed area and fuel loading rack area whenever accumulated storm water is to be discharged. The results of the sampling shall meet the effluent limits before the storm water can be released into the storm water sewer system that discharges at Outfall 001 and shall be reported as Outfall 001D. A grab sample shall be taken of the storm water from the hydrant vaults and fueling pits that that is stored in the set-up tank. The results of the sampling shall meet the effluent limits before the storm water can be pumped into the storm water sewer system that discharges at Outfall 003 and shall be reported as Outfall 003E. On a monthly basis, the contractor operating the Centralized Fuel Farm shall report on DMRs the maximum daily value of the testing results in milligrams per liter (mg/l), except for benzene which shall be reported in micrograms per liter (ug/l), before the 15th of the following month. 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 and are in accordance with the procedures in 40 C.F.R. §136. An estimate of the amount of storm water released to Outfall 003 shall be reported.

**WET WEATHER**

5. During the period beginning on the effective date and lasting through the expiration date, the Permittee and Co-Permittees are authorized to discharge storm water associated **with industrial activity** to outfall **005A for the Northwest Outfall** and from pavement and runway activities at 15 percent of the outfalls A-1 through A-44 sampled for a total of 7 outfalls. The results of sampling at least 15 percent of outfalls A-1 through A-44 shall be reported as an averaged (except Maximum daily) and reported as outfall **006A**. Such discharges shall be monitored by Massport as specified below:

| Effluent Characteristic | Discharge Limitations | | Monitoring Requirements | |
|---|---|---|---|---|
| | Average Monthly | Maximum Daily | Measurement Frequency | Sample Type |
| Flow, MGD [13] | Report | Report | 1/Quarter | Estimated |
| pH, Range, standard units [13] | Report | Report Range | 1/Quarter | Grab |
| Oil & Grease, mg/l [13] | Report | Report | 1/Quarter | Grab |
| TSS, mg/l [13] | Report | Report | 1/Quarter | Grab |
| Benzene, ug/l [13] | Report | Report | 1/Quarter | Grab |

Footnote for Table at I.A.4:

13. On a quarterly basis Massport shall sample the Northwest Outfall 005A and at least 15 percent (a minimum of seven) of the 44 runway/perimeter storm water outfalls (A-1 through A-44) during wet weather. The minimum of seven outfalls to be sampled during a deicing episode shall be chosen in accordance with the criteria established in the Runway/Perimeter Storm Water Outfall Sampling Plan (Perimeter Sampling Plan) in accordance with Section I.B.13, below, of the Best Management Practices Plan. The Perimeter Sampling Plan shall be completed within 90 days of the effective date of this Permit. These monitoring and reporting requirements shall become effective in 90 days after the effective date of this Permit to allow for the development and implementation of the Perimeter Sampling Plan. Massport shall report on DMRs the results of the quarterly monitoring before the 15th of the following month at the end of a quarter (Example: Report on April 15 for the January through March quarter). 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 and are in accordance with the procedures in 40 C.F.R. §136. Massport shall report the results of the monitoring at Outfall 005A, and the average value of the minimum of seven outfalls sampled as average monthly and maximum value reported as maximum daily for each quarter on DMRs from the monitoring results at the locations developed in the Perimeter Sampling Plan as Outfall 006A.

**DEICING EPISODES**

6. During the period beginning on the effective date and lasting through the expiration date, the Permittee and Co-Permittees are authorized to discharge storm water associated **with industrial activity** from pavement and runway deicing during a wet weather deicing episode at 15 percent of outfalls A-1 to A-44. The results of the sampling are to be reported as outfall **006B**. Such discharges shall be monitored by Massport as specified below:

**Monitor November through April only (Deicing Season):**

| Effluent Characteristic | Discharge Limitations | | Monitoring Requirements | |
|---|---|---|---|---|
| | Average Monthly | Maximum Daily | Measurement Frequency | Sample Type |
| Ethylene Glycol, Total, mg/l [14] | Report | Report | 2/Deicing Season (DS) | Grab |
| Propylene Glycol, Total, mg/l [14] | Report | Report | 2/DS | Grab |
| BOD5, mg/l [14] | Report | Report | 2/DS | Grab |
| COD, mg/l [14] | Report | Report | 2/DS | Grab |
| Total Ammonia Nitrogen, mg/l of N [14] | Report | Report | 2/DS | Grab |
| Nonylphenol, ug/l [14] | Report | Report | 2/DS | Grab |
| Tolyltriazole [14] | Report | Report | 2/DS | Grab |

Footnote for Table at I.A.5:

14. Massport shall sample 15 percent or seven outfalls of the 44 runway/perimeter storm water outfalls (A-1 through A-44) twice each deicing season during separate deicing episodes. At least seven outfalls are to be sampled during a deicing episode chosen in accordance with the criteria established in the Runway/Perimeter Storm Water Outfall Sampling Plan (Perimeter Sampling Plan). Samples shall be taken during a wet weather deicing episode as previously defined in Footnote 10, page 8, above. Massport shall report on DMRs the results of the two monitoring events on or before May 15 after the icing season. 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 and are in accordance with the procedures in 40 C.F.R. §136. These monitoring and reporting requirements shall become effective in 90 days after the effective date of this Permit to allow for the development and implementation of the Perimeter Sampling Plan. For each parameter Massport shall report the average results of the outfalls sampled over the two deicing episodes as the average monthly and maximum results for each outfall as the maximum daily on DMRs from the monitoring locations developed in the Perimeter Sampling Plan as Outfall 006B. Copies of the laboratory results from the two deicing episodes per season shall be submitted with the DMRs in May.

**DRY WEATHER**

7. During the period beginning on the effective date and lasting through the expiration date, the Permittee and Co-Permittees are authorized to discharge storm water associated **with industrial activity** from vehicle maintenance areas, equipment cleaning areas and deicing activities from outfalls **001C (North Outfall)**, **002C (West Outfall) and Outfall 004C (Maverick Street Outfall)**. Such discharges shall be limited and monitored by Massport as specified below:

| Effluent Characteristic | Discharge Limitations | | Monitoring Requirements | |
|---|---|---|---|---|
| | Average Monthly | Maximum Daily | Measurement Frequency | Sample Type |
| Oil & Grease, mg/l [15] | ---- | 15 | 1/Month | Grab |
| TSS, mg/l [15] | Report | 100 | 1/Month | Grab |
| Benzene, ug/l [15] | Report | 51 | 1/Month | Grab |
| Fecal Coliform [3], cfu/100 ml [15] | Report | Report | 1/Month | Grab |
| Enterococcus [3], cfu/100 ml [15] | Report | Report | 1/Month | Grab |
| Surfactant, mg/l [15] | Report | Report | 1/Month | Grab |

Footnotes for Table at I.A.6:

15. A monthly grab sample shall be taken during dry weather conditions at a representative location of the point of discharge. Dry weather conditions mean that the samples must be taken at least 72 hours after the previously measurable (greater than 0.1 inch rain fall) storm event. On a monthly basis, Massport shall report on DMRs the maximum daily value of the testing results in milligrams per liter (mg/l), except for benzene which shall be reported in micrograms per liter (ug/l), before the 15th of the following month. 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 and are in accordance with the procedures in 40 C.F.R. §136.

**DRY WEATHER**

8. During the period beginning on the effective date and lasting through the expiration date, the Permittee and Co-Permittees are authorized to discharge storm water associated **with industrial activity** from vehicle maintenance areas, equipment cleaning areas and deicing activities from outfall **Outfall 003C (Porter Street Outfall)**. Such discharges shall be monitored by Massport as specified below:

| Effluent Characteristic [16] | Discharge Limitations | | Monitoring Requirements | |
|---|---|---|---|---|
| | Average Monthly | Maximum Daily | Measurement Frequency | Sample Type |
| Oil & Grease, mg/l [17] | ---- | Report | 1/Month | Grab |
| TSS, mg/l [17] | Report | Report | 1/Month | Grab |
| Benzene, ug/l [17] | Report | Report | 1/Month | Grab |
| Fecal Coliform, cfu/100 ml [17] | Report | Report | 1/Month | Grab |
| Enterococcus, cfu/100 ml [17] | Report | Report | 1/Month | Grab |
| Surfactant, mg/l [17] | Report | Report | 1/Month | Grab |

Footnotes for Table at I.A.6:

16. Massport shall monitor the storm water for the listed pollutants and report the maximum daily results on Discharge Monitoring Reports (DMRs). Massport shall develop sampling locations to get a representative sample of the Porter Street discharge area in accordance with the Porter Street Monitoring Plan. Massport shall develop the Porter Street Monitoring Plan within 90 days of the effective date of this Permit in accordance with Section B.12, below.

17. A monthly grab samples shall be taken during dry weather conditions at each of the sampling locations. On a monthly basis, Massport shall report on DMRs the monthly average value (an average of all locations, except O&G) and maximum daily value (the maximum from all locations) of the testing results in milligrams per liter (mg/l), except for benzene which shall be reported in micrograms per liter (ug/l), and fecal coliform and enterococcus which shall be reported in colony forming units per 100 milliliters (cfu/100 ml), before the 15th of the following month. 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 and are in accordance with the procedures in 40 C.F.R. §136.

**Part I.A (Continued) Conditions for All Outfalls**

9. Massport, as the owner operator of the airport facility and the storm water sewer system, is ultimately responsible for the discharges from their storm water sewer system to waters of the United States (60 FR 51103, Sept. 29, 1995).

10. The discharge shall not cause or have the reasonable potential to cause or contribute to a violation of a water quality standard.

11. The pH of the any effluent shall not be less than 6.5 nor greater than 8.5 at any time.

12. The discharges shall not cause objectionable discoloration of the receiving waters.

13. Any effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

14. 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.

15. The results of sampling for any parameter above its required frequency must also be reported, in accordance with 40 C.F.R. § 122.41(l)(4)(ii).

16. This permit shall be modified, or revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

    (1) contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or

    (2) controls any pollutant not limited by this permit.

    If the permit is modified or reissued, it shall be revised to reflect all currently applicable requirements of the Act.

17. All existing manufacturing, commercial, mining, and silvi-cultural 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) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(3) Five (5) 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).

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) Five hundred micrograms per liter (500 ug/l);

(2) One milligram per liter (1 mg/l) for antimony;

(3) Ten (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).

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.

18. Toxics Control

a. The Permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.

b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

19. Numerical Effluent Limitations for Toxics

EPA or DEP may use the results of the toxicity tests and chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 C.F.R. Part 122.

## B. BEST MANAGEMENT PRACTICES PLAN

1. BMP Plan Development - Massport shall develop a Best Management Practices Plan (BMP Plan) for all sources of water pollutants generated at Logan International Airport and discharged to the Boston Harbor, Boston Inner Harbor and Winthrop Bay. The BMP Plan shall include a general section for the control of all sources of water pollutants and three additional discrete sections for each major source of pollutants: 1) deicing and anti-icing chemical sources, 2) potential bacteria sources, and 3) fuel and oil sources. Massport shall complete the BMP Plan and distribute the BMP Plan to the Co-Permittees **within 60 days from the effective date of the final Permit**.

2. Co-Permittees & Other Tenants

Co-Permittees: Many tenants and contractors (often referred to as "fixed-base operators") operating at Logan have been named as "Co-Permittees" due to the storm water discharges associated with their industrial activities. 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). A company meets the definition of a Co-Permittee if the company performs industrial activities at an air transportation facility, such as Logan International Airport (Logan), classified under Standard Industrial Classifications (SIC) 45 that have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations (see 40 C.F.R. § 122.26(b)(14)(viii)). Furthermore, a Co-Permittee includes a company that performs industrial activities at an air transportation facility as defined in the NPDES Storm Water Multi-Sector General Permit for Industrial Activities (see 65 FR 64745, Oct. 30, 2000 and 70 FR 72116, Dec. 1, 2005). For air transportation companies the industrial activities include "servicing, repairing, or maintaining aircraft and ground vehicles; equipment cleaning and maintenance (including vehicle and equipment rehabilitation mechanical repairs, painting, fueling, and lubrication); and deicing/anti-icing operations" (Proposed 2006 MSGP, Part 4, Subsection S at p. 134, referenced by 70 FR 72116, see also http://www.epa.gov/npdes/stormwater). A Co-Permittee includes a company that performs an activity at Logan that EPA has determined can contribute to a violation of a water quality standard (see 40 C.F.R. § 122.26(a)(v)), as it has for companies handling aircraft lavatory waste or any other sanitary waste device not directly piped to a "Publicly Owned Treatment Works."

Each Co-Permittee has filled out a Logan International Airport (Logan) Storm Water Co-Permittee Application (SWCPA)(See Attachment B for a blank copy of the SWCPA). The SWCPA requires the Co-Permittee to supply the name and address of the company, and the name, title, phone number and e-mail of the person in charge of environmental

compliance for the Co-Permittee. The Co-Permittee shall designate the industrial activities it performs at its leased property at Logan and all other industrial activities it performs elsewhere on Logan property. A responsible official shall sign the SWCPA as a Co-Permittee.

Each Co-Permittee shall develop a BMP Plan that is consistent with the Massport BMP Plan **within 120 days from the effective date of the final Permit**. The BMP Plan for a Co-Permittee shall include a general section referred to as BMP Plan and discrete sections for each potential source of pollutants as generated by a Co-Permittee according to the three major sources of pollutants in the storm water: (1) deicing and anti-icing chemical sources, (2) potential bacteria sources, and (3) fuel and oil sources. Co-Permittees shall submit its BMP Plan to Massport for approval.

Attachment C to this permit includes the signed copies of the SWCPA. The Permit requires Massport to maintain a current list of the Co-Permittees at Logan and each Co-Permittee's contact for environmental issues. When a new Co-Permittee begins to operate at Logan or a Co-Permittee ceases to operate at Logan, Massport shall notify in writing the EPA Region I, Director of the Office of Ecosystem Protection and follow the change in ownership or operational control requirements of 40 C.F.R. § 122.63(d). The Massport notification to EPA shall be submitted at least 30 days prior to the date the new Co-Permittee plans to operate or an existing Co-Permittee plans to cease operating at Logan and shall include a revised Attachment C and a signed copy of the SWCPA for all new Co-Permittees.

Massport shall require any new Co-Permittee to develop a BMP Plan consistent with this final Permit. Massport shall keep a copy of the most recent BMP Plan including copies of all the Co-Permittees Best Management Practices Plan at Massport's Environmental Department at Logan and shall make it available upon request to any representative of EPA or MassDEP.

Other Tenants: Other tenants at the airport, such as car rental and food preparation establishments, which are not defined separately as storm water discharges associated with industrial activity under 40 C.F.R. § 122.26(b)(14) must also be addressed. EPA and MassDEP require Massport to work out private agreements through contracts to ensure that the Best Management Practices Plan for Logan addresses storm water contamination from these types of tenants (60 FR 51104, Sept. 29, 1995).

3. BMP Plan Certification - Massport shall maintain, update and assure the proper implementation of the its BMP Plan and all the Co-Permittee's BMP Plans. Massport and the Co-Permittees shall account for any changes that occur at Logan which could impact the Plan and amend the BMP Plan to reflect any changes. Massport shall be required to provide an annual report that includes the proper certification to EPA and the MassDEP documenting that the previous year's inspections and maintenance activities were conducted, results recorded, records maintained, and that Massport is in compliance with the BMP Plan. The report with the proper certification shall be signed in accordance with the requirements identified in 40 C.F.R. §122.22 and a copy of the certification will be sent each year to EPA and MassDEP **within 90 days of the annual anniversary of the effective date of the permit**. Massport shall obtain certifications (as described above for Massport) from the Co-Permittees for their industrial activities and submit all the

originally signed certifications to EPA and a copy of the certifications to MassDEP.

4. BMP Plan Objectives - The BMP Plan shall focuses on two major objectives: (1) to identify sources of pollution potentially affecting the quality of the water discharged at the airport's outfalls including, but not limited to, storm water, process water, and waste water associated with activities performed throughout the airport; and (2) ensure implementation of measures to minimize and control pollutants in storm water, waste water and process water discharges associated with activities performed throughout the airport.

   The BMP Plan for Massport and the Co-Permittees should address all sources of pollutants at or near their locations of operation that have the potential to drain to the storm water 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) planes are fueled, (4) solid wastes and raw materials with the potential to leak are stored, (5) solid wastes and raw materials are stored inside and have a potential to spill and flow to inside floor drains that drain to the storm water system or to the outside, (6) automotive maintenance and cleaning activities occur, (7) airplane maintenance activities occur, (8) deicing chemicals are spread on tarmac or outside, (9) maintenance of the runways to remove rubber particles to improve the surface friction levels, (10) sewer connections to the storm water drainage system are identified, (11) planes lavatory wastes and other Lavatory wastes are removed and transported, (12) food or food wastes are stored that potentially attract birds and animals, and (13) birds 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. Massport shall designate an Environmental Manager that will be responsible for developing and implementing the facility wide BMP Plan. Each Co-Permittee listed in Attachment C shall designate an Environmental Manager responsible for developing the BMP Plan(s) required for the Co-Permittee's facility and its activities. Massport shall follow these four steps: (1) form a team of qualified environmental airport personnel who will be responsible for preparing the BMP Plan and assisting Massport's Environmental Manager responsible in implementing the BMP Plan; (2) 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 storm water sewer system.

   Massport and the Co-Permittees shall develop management practices that use pollution prevention approaches to control the discharge of water pollutants. Two classes of management practices are generally employed at industrial facilities: 1) a pollution control program that implement practices such as good housekeeping, employee training, and spill response and prevention procedures, and 2) management practices that address containment, mitigation, and cleanup.

5. Outline of the BMP Plan - The BMP Plan shall contain the following elements:

   a. Details of the BMP Plan
      i. Pollution Prevention Team

ii. Description of the Facility and Potential Pollution Sources
iii. Description of the Facility Site and Receiving Waters/Wetlands
iv. Description of Potential Pollutant Sources
v. Storm Water Management Controls
vi. Site Inspection
vii. Consistency with Other Plans
viii. Amending the BMP Plan

b. BMP Plan for Identifying and Eliminating Deicing and Anti-Icing Sources
c. Development of a Pollution Prevention Plan (PPP) for Deicing Chemicals
d. BMP for Identifying and Eliminating Potential Bacteria Sources
e. BMP for Identifying and Eliminating Fuel and Oil Sources
f. BMP for Minimizing and Eliminating Rubber Removal Sources
g. Porter Street Monitoring Plan
h. Runway/Perimeter Storm Water Outfalls Sampling Plan

6. Details of the BMP Plan

a. Pollution Prevention Team

As a first step in the process of developing and implementing a facility wide BMP Plan, Massport shall identify a team of individuals that includes a representative from each Co-Permittee. The team shall be responsible for developing the BMP Plan and assisting the Massport Environmental Manager in its implementation. When selecting members of the team, the Environmental Manager 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.

b. Description of the Facility and Potential Pollution Sources

The BMP Plan shall describe activities, materials, and physical features of the facility that may contribute significant amounts of pollutants to storm water runoff or, during periods of dry weather, result in pollutant discharges through the separate storm sewers or storm water drainage systems that drain the facility. This assessment of storm water pollution risk will 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.

c. 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 storm water drainage, an indication of the types of discharges contained in the drainage

areas of the outfalls, structural features that control pollutants in runoff,[1] surface water bodies (including wetlands), places where significant materials[2] are exposed to rainfall and runoff, and locations of major spills and leaks that occurred in the past 3 years from the effective date of this final Permit. The map also must show the locations where the following activities take place: (1) chemicals or fuels are stored, (2) deicing and anti-icing chemicals are applied to airplanes, (3) planes are fueled, (4) solid wastes and raw materials with the potential to leak are stored, (5) solid wastes and raw materials are stored inside and have a potential to spill and flow to inside floor drains that drain to the storm water system, (6) automotive maintenance and cleaning activities occur, (7) airplane maintenance activities occur, and (8) deicing chemicals are spread on tarmac. For areas of the facility that generate storm water discharges with a reasonable potential to contain significant amounts of pollutants, the map must indicate the probable direction of storm water 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.

d. Description of Potential Pollutant Sources

The BMP Plan must provide a description of potential sources which may be reasonably expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutant draining the facility. The description must address each pollutant for which monitoring is required. The BMP Plan must identify all activities and significant materials, which may potentially be significant pollutant sources. The BMP Plan shall include:

i. A topographic map extending one-quarter of a mile beyond the property boundaries of the facility;

ii. An estimate of the overall runoff coefficient for the site, determined by an acceptable method, such as area weighting;

iii. A narrative description of significant materials that have been treated, stored or disposed of in a manner to allow exposure to storm water between the time of three years prior to the issuance of this permit to the present; method of on-site storage or disposal; materials management practices employed to minimize contact of these materials with storm

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[1] Nonstructural features such as grass swales and vegetative buffer strips also should be shown.

[2] 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 EPCRA Section 313; fertilizers; pesticides; and waste products, such as ashes, slag, and sludge that have the potential to be released with storm water discharges. (See 40 C.F.R. § 122.26(b)(8)).

water runoff between the time of three years prior to the issuance of this permit and the present; materials loading and access areas; the location and description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and description of any treatment the storm water receives;

iv. A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at the facility three years prior to the effective date of this permit to the present;

v. A list of any pollutants limited in effluent guidelines to which the facility is subject under 40 C.F.R. Subchapter N, any pollutants listed on the NPDES permit to discharge process waste water, and any information required under 40 C.F.R. §§ 122.21(g)(iii)-(v);

vi. For each area of the facility that generates storm water discharges with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an estimate of the types of pollutants, which are likely to be present in storm water;

vii. A summary of existing sampling data describing pollutants in storm water discharges from the facility; and

viii. A list of any non-storm water discharges, except discharges from fire fighting activities that are known or are reasonably expected to be present at the site.

e. Storm Water Management Controls

Massport must develop a description of storm water management controls appropriate for an airport and implement such controls. The appropriateness for implementing controls listed in the BMP Plan must reflect identified potential sources of pollutants at the facility. The description of storm water management controls must address the following minimum components, including a schedule for implementing such controls:

i. Pollution Prevention Team - The BMP Plan must identify a specific individual(s) from Massport and each Co-Permittees as members of a team that are responsible for developing the BMP Plan and assisting the Massport Environmental Manager in its implementation, maintenance, and revision. The BMP Plan must clearly identify the responsibilities of each team member. The activities and responsibilities of the team must address all aspects of Logan's BMP Plan.

ii. Risk Identification and Assessment/Material Inventory - The BMP Plan must assess the potential of various sources at the Logan that contribute pollutants to storm water discharges associated with industrial activity. The BMP must include an inventory of the types of materials handled. Each of the following must be evaluated for the reasonable potential for

contributing pollutants to runoff: (1) chemicals or fuels are stored, (2) deicing and anti-icing chemicals are applied to airplanes, (3) planes are fueled, (4) solid wastes and raw materials with the any potential to leak are stored, (5) solid wastes and raw materials are stored inside and have with a potential to spill and flow to inside floor drains that drain to the storm water system, (6) automotive maintenance and cleaning activities occur, (7) airplane maintenance activities occur, (8) deicing chemicals are spread on tarmac, (9) identifying sewer connections to the storm water drainage system, (10) planes lavatory wastes are removed and transported, (11) food or food wastes are stored that potentially attract birds and animals, and (12) birds flock. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced, or discharged; the likelihood of contact with storm water, and the history of significant leaks or spills of toxic or hazardous pollutants.

iii. Preventative Maintenance - A preventative maintenance program must involve inspections and maintenance of storm water management devices (i.e. oil/water separators, catch basins, track mats) as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdown or failures resulting in discharges of pollutants to surface waters. No power washing in outdoor areas. All wash water that leads to storm water drainage must be reclaimed and properly disposed.

iv. Good Housekeeping - Good housekeeping requires the maintenance of a clean orderly facility.

v. Spill Prevention and Response Procedure - Areas where potential spills can occur and their accompanying drainage points, must be identified clearly in the BMP Plan. The potential for spills to enter the storm water 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 BMP Plan and made available to the appropriate personnel. The nearby storm water discharges should be tested for pollutants contained in the material spilled within 24 hours from the spill and as directed by the EPA or the MassDEP during the clean up.

vi. Storm Water Management - The BMP Plan must contain a narrative evaluation of the appropriateness of traditional storm water management practices. Based on an assessment of the potential of various sources at the facility to contribute pollutants to the storm water discharge, the BMP Plan must provide measures, determined to be reasonable and appropriate, to be implemented and maintained.

vii. Sediment and Erosion Prevention - The BMP Plan must identify areas which, due to topography, activities, or factors, have a high potential for significant soil erosion and identify measures to limit erosion.

viii. Employee Training - Employee training programs must inform personnel responsible for implementing activities identified in the BMP Plan, or

otherwise responsible for storm water management at all levels, of the components and goals of the BMP Plan. Training should address topics such as spill response, good housekeeping and material management practices. The BMP Plan must identify periodic dates for such training (at a minimum annually).

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 quarterly monitoring at the seven out of 44 outfalls by the runways and perimeter of the airport, each discharge shall be inspected annually during a wet weather event, as previously defined, and the person performing the inspection shall estimate the flow rate of the water being discharged using standard engineering techniques. 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. Records of inspections must be maintained for five (5) years.

x. Recordkeeping and Internal Reporting Procedures - Incidents such as spills, or other discharges, along with other information describing the quality and quantity of storm water discharges must be included in the records. All inspections and maintenance activities must be documented and maintained on site for at least five (5) years.

f. Site Inspection - An annual site inspection must be conducted by the Pollution Prevention Team, as named in the BMP Plan, 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 storm water and process water discharges identified in the BMP Plan 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 the inspection. Records documenting significant observations made during the site inspection must be retained as part of the BMP Plan for a minimum of five (5) years.

g. Consistency with Other Plans - Storm water management controls may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the CWA or Best Management Practices (BMP) Programs otherwise required by an NPDES permit and may incorporate any part of such plans into the BMP Plan by reference.

h. Amending the BMP Plan - Massport and the Co-Permittees shall immediately amend the BMP Plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to Boston Harbor; a release of reportable quantities of hazardous substances and oil; or if the BMP Plan proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges.

7. <u>BMP Plan for Identifying and Eliminating Deicing and Anti-icing Sources</u>

Massport and Co-Permittees that store, handle or apply deicing and/or anti-icing compounds[3] at Logan International Airport shall develop a Best Management Practice Plan for Deicing and Anti-icing Chemicals (DAC). Additionally, Massport and the Co-Permittees shall develop and implement a Pollution Prevention Plan for the Discharge of Deicing Chemicals as described in Section 8, below. The DAC shall include the following information:

a. Drainage Area Site Map - Massport and Co-Permittees shall identify areas on a map where they use deicing chemicals by the drainage area for each outfall.

b. Potential Pollutant Sources - Massport and Co-Permittees shall describe the potential sources of deicing chemicals by the activities performed that could be released and discharged to the storm water drainage system. Activities include but are not limited to: storing deicing chemicals, transporting deicing chemicals, deicing aircraft, and runway deicing operations (including apron, runways, taxiways and ramps). Massport and Co-Permittees shall maintain an inventory of the deicing chemicals used per day in gallons or pounds with an inventory of the amount used for each activity performed as described in the previous sentence. This includes all deicing chemicals, not just glycols and urea (e.g., potassium acetate). A Material Safety Data Sheets shall be maintained for all deicing chemicals used and included in the DAC. Co-Permittees must provide to Massport the amount of deicing chemicals used by activity per day within 48-hour from the end of the day.

c. Special Conditions - Massport and each Co-Permittee is required to report spills equal to or exceeding the reportable quantity (RQ) levels specified at 40 C.F.R. 110, 117, and 302 for each deicing chemical that is released to the storm water drainage system and the environment.

d. Storm Water Management - Massport and the Co-Permittees that use deicing chemicals shall develop Standard Operating Procedures (SOPs) to prevent or minimize the release of deicing chemicals to the storm water drainage systems. During development of the DAC, Massport and the Co-Permittees shall develop SOPs for applying deicing chemicals during wet and dry weather conditions. The SOPs included in the DAC shall state how Massport and the Co-Permittees apply deicing chemicals during wet weather and dry weather. Additionally, the DAC shall include data gathering for the following:

    i. Runway Deicing Operation - Massport or any contractor that apply deicing chemicals to the runway shall evaluate, at a minimum, the over-application of deicing chemicals by analyzing application rates and adjusting as necessary, consistent with considerations of flight safety. Massport shall measure and record the temperature, wind speed, rate and type of precipitation, application rate of deicing chemicals used for the

[3] "Deicing" will generally be used to imply 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.

runway operation, the total quantity of deicing chemicals used on a daily basis, and note whether the deicing chemicals are applied during wet or dry weather. The information shall be recorded at least every 60 minutes when deicing chemicals are being applied. These records shall be maintained by Massport as part of the DAC.

ii. Aircraft Deicing Operations - Massport and the Co-Permittees that apply deicing chemicals to aircraft shall evaluate, whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. Massport and Co-Permittees that apply deicing chemicals to aircraft shall measure and record the temperature, wind speed, rate and type of precipitation, the amount and type of deicing chemicals applied to each aircraft, the type of aircraft, the total amount of deicing chemicals used on a daily basis, and note whether the deicing chemicals are applied during wet or dry weather. The information shall be recorded immediately after applying deicing chemicals to each aircraft. These records shall be maintained by Massport as part of the DAC.

8. Development of a Pollution Prevention Plan (PPP) for Deicing Chemicals

**Within six months from the effective date** of the final Permit Massport and the Co-Permittees shall evaluate and recommend a plan to greatly reduce or eliminate the discharge of deicing chemicals from storm water and the storm water drainage system. Massport shall submit a report to EPA and the MassDEP with recommendations to implement new procedures to minimize the discharge of deicing chemicals to Boston Harbor, Boston Inner Harbor and Winthrop Bay.

Massport and the Co-Permittees shall review and report on the findings in the PPP, the following information:

a. Runway Deicing Operation - Massport and Co-Permittees that apply deicing chemicals to the runway shall evaluate, at a minimum, the over-application of deicing chemicals by analyzing application rates and adjusting as necessary, consistent with considerations of flight safety. Massport shall include in the PPP the best management practice options for the runway deicing operations including: (1) the consideration of metering the application of deicing chemicals, (2) the use of prewetting dry chemical constituents prior to the application of glycol-based deicing chemicals, (3) installing a runway ice detection system, (4) implement anti-icing operations as a preventative measure against ice buildup.

Additionally, Massport shall review the technical feasibility of consolidating the 44 outfalls associated with the drainage of the runways. The review should consider consolidating the outfalls to a more manageable quantity of outfalls with access for sampling and monitoring of the discharges while the runways are active. In this review, Massport should consider that treatment of the discharges could be required in the future. Therefore, Massport should consider the space, location and access issues associated with collecting and treating storm water contaminated with deicing chemicals during wet and dry weather during a consolidation project.

b. Aircraft Deicing Operations - Massport and the Co-Permittees that apply DAC

chemicals to aircraft shall evaluate, whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. Massport and Co-Permittees shall include in the PPP the best management practice options for reducing the amount of deicing chemicals used for aircraft deicing operations including: (1) forced-air deicing systems, (2) computer controlled fixed-gantry systems, (3) infrared technology, (4) hot water, (5) varying glycol to air temperature, (6) enclosed basket deicing trucks, (7) mechanical methods, and any new technologies being used in North America. Additionally, Massport and the Co-Permittees shall describe and implement a program in the PPP to control and manage contaminated runoff during wet weather conditions to reduce or eliminate the amount of deicing chemicals being discharged from the site from the deicing of aircraft. Massport and the Co-Permittees shall consider following alternatives or a combination of these alternatives: (1) a dedicated deicing facility with a runoff collection/recovery system, (2) using vacuum collection trucks, (3) storing contaminated storm water/deicing fluids in tanks and either treating on-site or releasing controlled amounts to the MWRA treatment works, (4) diverting the storm water drainage system for collection and treatment, and (5) collecting contaminated runoff in a wet pond for biochemical decomposition and (6) recycling collected deicing chemicals. The MWRA and the Co-Permittees shall describe and implement a program in the DAC to recover deicing materials when these materials are applied during dry weather conditions. Massport and the Co-Permittees shall consider the alternatives described in the previous sentence for wet weather conditions to be used during dry weather conditions and to consider the following additional alternatives: (1) covering storm water inlets and collecting the deicing chemicals, (2) the use of booms to divert and absorb the deicing chemicals, (3) installing absorptive interceptors in the drains.

9. <u>Development of BMP Plan for Identifying and Eliminating Potential Sources of Bacteria</u>

a. Purpose/Goal

Massport, with the cooperation of the Co-Permittees, will develop and implement a comprehensive plan to identify and eliminate dry and wet weather illicit discharges to its separate storm water sewer system. The plan will focus on the sanitary sewer system as the primary source of contamination. This best management plan will rely primarily on visual observations of the storm water sewer and sanitary sewer systems including, television 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 bacteria sources.

Massport may also employ additional investigative techniques, including indicator bacteria sampling, flourescent whitening agents, and genetic microbial source tracking, to identify potential sources of bacteria from the sanitary sewer system to the storm water sewer system. Massport shall perform these investigations of its sanitary sewer system to assure bacteria sources are not entering the storm water sewer system. Results of these investigations will be used to determine if modifications of the BMP Plan are warranted.

b. Mapping

The goal of the mapping is the comprehensive depiction of key infrastructure and identification of potential cross-connections between the sanitary sewer and storm water sewer systems and potential illicit sanitary sewer discharges. The required number, scale and detail of the maps will be appropriate to facilitate a rapid understanding of the system by Massport and regulators, serve as a planning tool for the implementation and phasing of investigations, and demonstrate the extent of complete and planned investigations and corrective actions. Mapping will be updated as necessary to reflect newly discovered information, corrections or modifications to the sewer systems, and progress made.

c. Drainage Tributary Area Prioritization

Drainage areas will be prioritized for investigative work according to the following criteria:

i. Areas suspected to have potential problems (documented by past investigations, indicator bacteria monitoring, or anecdotal information),

ii. Storm water outfall discharges to sensitive or critical waters including clam beds or other sensitive resource areas,

iii. Areas with previously observed surcharge conditions,

iv. Remaining areas will be prioritized through an outfall screening and ranking process.

d. Drainage Tributary Area Investigations

i. Co-Permittee Cooperation and Outreach Program

Massport shall notify each Co-Permittees, effected tenants or fixed-base operators of the scope and schedule of investigative work, and potential need to gain access to their buildings and property to inspect infrastructure and building plumbing.

ii. Sewer and Drain Manhole Inspections

Storm water and sanitary sewer manholes and appurtenant structures (e.g., catch basins) will be opened and inspected. Data to be collected will include pipe material, rim to invert measurements, condition assessment of manholes and pipes, visual evidence of sewer contamination in the storm water sewer infrastructure, and digital photographs. Inspections will also confirm the connectivity of the systems and will field verify the mapping.

iii. Sanitary Sewer System Cleaning and Television Inspection

The sanitary sewer system will be cleaned and inspected via closed-

circuit television (CCTV) equipment. Any deficiencies that may contribute to cross-connections will be catalogued and prioritized for repair based on relative significance. Other defects and structural problems will also be recorded.

iv. Sanitary Sewer System Dye Flooding

Dye flooding of the sewer system will occur in areas where visual and CCTV inspections the indicate potential for exfiltration into a storm drain.

v. Building Plumbing Dye Testing

All plumbing connections from buildings will be dye tested. Building inspections will also be used to identify and document additional plumbing that may not appear on current plans. Sewers and drains will be monitored during the dye tests and improper connections will be noted.

e. 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 the investigation results, and appropriate rehabilitation solutions will be implemented. Following removal of a cross-connection, illicit discharge, or other rehabilitation, dye flooding and testing will be used to verify the correction.

f. Work Progression and Schedule

A master schedule will be developed at the start of the program and will be continually updated based on results of field investigation and rehabilitations. The prioritization of the investigative program will be based on various factors, including storm water bacteria results and access issues.

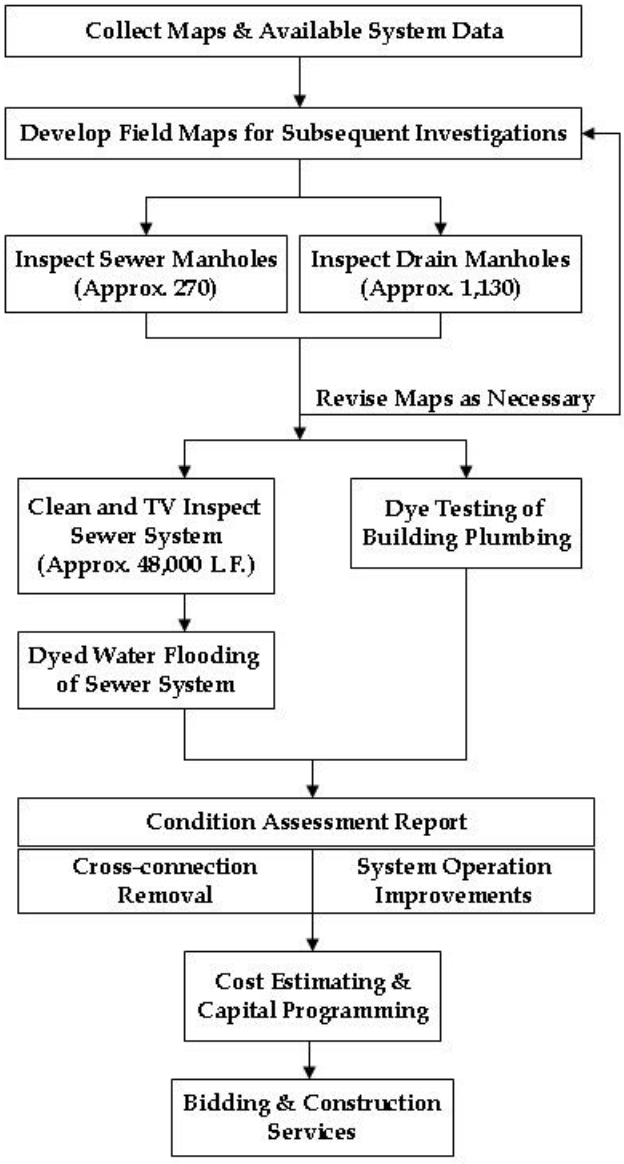
In each drainage area, the work will begin with comprehensive mapping followed by manhole inspections, sewer cleaning and CCTV inspections, and dyed water flooding of the sewer system. Dye tests of the building plumbing will be conducted concurrently with the sewer cleaning and television inspections. A flow-chart of the investigative procedure is presented in Figure 1.

The sanitary sewer system inspection and cleaning will progress in a downstream manner through the system's drainage area. Deficiencies in the sanitary sewer system will be documented. Sewer rehabilitation, cross-connection removal and operational improvements will be implemented. Concurrently, the inspection and cleaning operations will proceed downstream. From the information gathered during the inspection and cleaning operation, repairs will be scheduled based on the severity of the deficiency. Masssport shall assure that funding for the repairs will be available.

g. Program Evaluation

The progress of the investigation will be evaluated by tracking metrics such as:

i. Number/Percentage of manholes/structures inspected,
ii. Number/Percentage of buildings inspected/dye tested,
iii. Footage/Percentage of pipe cleaned and inspected by CCTV,
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.


Collect Maps & Available System Data
Develop Field Maps for Subsequent Investigations
Inspect Sewer Manholes (Approx. 270)
Inspect Drain Manholes (Approx. 1,130)
Revise Maps as Necessary
Clean and TV Inspect Sewer System (Approx. 48,000 L.F.)
Dye Testing of Building Plumbing
Dyed Water Flooding of Sewer System
Condition Assessment Report
Cross-connection Removal
System Operation Improvements
Cost Estimating & Capital Programming
Bidding & Construction Services

10. BMP Plan for Identifying and Eliminating Fuel and Oil Sources

a. Above Ground Storage Tanks

Rain water from the large AST bunkers are observed for any floating layer of oil. The accumulated storm water shall be sampled and discharged after the results confirm the effluent limits are met in accordance with Part I.A.3, above. Only then can the water be pumped to the storm water sewer system.

b. SPCC Plan

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

c. Minimum Requirements for ASTs

The BMP Plan shall state at a minimum that all spilled or leaked AV-1 from the ASTs shall be removed from the secondary containment system as quickly as practical and in all cases within 24 hours. The secondary containment system (the bermed area around the ASTs) must be thoroughly cleaned to remove any residual contamination.

After a storm event, samples shall be taken of the water that collects in the secondary containment. The samples shall be analyzed for oil and grease (O&G), benzene, TSS and pH. An estimate of the amount of water shall be made or the water metered upon removal. The water can be discharged into the facility storm water drainage system if it meets the effluent limits specified in Part I.A.4, page 9, above. Otherwise, the water shall be treated to below the effluent limits before being discharge to the facility storm water drainage system, or be transported and disposed of off-site consistent with all federal and state requirements.

d. Underground Storage Tanks

At the fuel farm, a 15,000-gallon underground storage tank (UST) is referred to as the set-up tank. The storm water from the vaults and pits of the centralized fueling system is stored in the 15,000 gallon UST Set-up Tank. Additionally, storm water accumulates at the loading racks that are available for trucks to fill their tankers for remote fueling of aircraft. Additionally, two gasoline pumps and two diesel fuel pumps adjacent to the loading racks are available for fueling on-site vehicles. A 12,000-gallon underground storage tank (UST) stores diesel fuel used by onsite trucks and two 12,000-gallon UST stores gasoline for fueling on-site vehicles. A 1,000-gallon UST stores diesel fuel for an on-site electrical generator.

e. Minimum Requirments for USTs and Loading Rack Area at the Fuel Farm

Best Management practices shall include, at a minimum the following:

i. All USTs shall be installed, inspected, maintained, tested, and monitored

in accordance with local, state and federal requirements.

ii. Divert storm water run-on away from fueling areas through the use of grade control, berms, or curbing to avoid storm water 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 tankers.

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.

ix. The following procedures shall be followed when disposing the storm water collected at the Fueling Racks.

Storm water accumulates at the loading racks. The accumulated storm water in the UST shall be analyzed and sampled for oil and grease (O&G), benzene, and pH. The storm water that meets the effluent limits (see Part I.A.3, above) can be pumped through the oil/water separator and drained to the North Outfall storm water sewer system. Otherwise, the water needs to be treated to below the effluent limits if the water is to be discharged to the Logan storm water drainage system.

f. 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. § 300.4) or major spill (greater than or equal to RQs). SOPs shall include documenting any quantity of AV-1 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 the Environmental Manager of Massport to assure consistency between each Co-Permittee.

Each operator of a piece 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 24 hours to the proper authorities in accordance local, state and federal requirements. Additionally, the managers for a Co-Permittee shall immediately alert the Environmental Manager for Massport upon learning

of a major spill.

Each operator of aircraft fueling equipment shall be trained to operate the equipment in accordance with the SOP **within 30 days** from Massport approving the SOP or within 30 days from being hired. All SOPs shall be developed and approved by Massport **within 120 days of the effective date of the permit.**

Each operator of aircraft fueling equipment shall have biennial refresher training of the SOP requirements. Documentation of all training shall be retained for a minimum of 5-years and made available upon inspection by EPA or MassDEP.

g. Best Management Practices for Fueling Practices

The following best management practices (BMPs) are designed to prevent storm water from contacting pollutants associated with fueling activities. Co-Permittees must implement the BMPs applicable to their facility and specific operations:

i. Use absorbents, drain blocking devices (i.e., mats), gate valves at catch basin, or other means of containment during fueling to prevent spilled fuel from entering storm drains.

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 storm water or storm water 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. Post information, such as "Do Not Dump. Leads to Boston Harbor" by catch basins and other inlets that convey storm water within 100 yards of any aircraft fueling location.

h. Aircraft Maintenance Activities at Hangers (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 produce the potential of a release of pollutants. No fluid changes are permitted outside.

Major maintenance is permitted inside hangers and other buildings designed for maintenance of aircraft. Major maintenance includes fluid changes, engine repairs or engine disassembly.

The following best management practices (BMPs) are designed to prevent storm water 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 should be considered in the development of the BMP Plan.

i. Maintenance activities shall occur indoors at designated maintenance facilities.

ii. Maintain equipment in a clean condition and store indoors in properly designed and suitably designated area.

iii. Use "dry" cleaning and surface preparation techniques when possible.

iv. Use water-based cleaning agents or non-chlorinated solvents to clean equipment parts when possible.

v. Conduct maintenance in buildings equipped with runoff controls to prevent discharges to storm water.

vi. Do not perform maintenance activities or stage equipment near storm water catch basins or any storm water 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.

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. Regular 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 hanger. Wastes from catch basins must be contained and properly disposed of off site. No flushing of catch basin to receiving waters is allowed.

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, such as "Do Not Dump. Leads to Boston Harbor" by catch basins and other inlets that convey storm water within 100 yards of any aircraft maintenance location including outside aircraft hangers.

xv. No wash waters from cleaning aircraft are to be discharged to a storm water drainage system.

i. Automotive and Ground Service Equipment Maintenance Activities (includes washing)

Automotive and ground service equipment (GSE) maintenance activities performed on airport property shall be performed indoors in maintenance garages or maintenance facilities. No maintenance activities shall be performed on terminal aprons at any time, except in case of an emergency.

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 storm water 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 should be considered in the development of the BMP Plan.

i. Maintenance activities shall occur indoors at designated garage or maintenance facilities.

ii. Maintain equipment in a clean condition and keep parts and equipment stored indoors at properly designed and suitably designated areas.

iii. Use "dry" cleaning and surface preparation techniques 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 storm water.

vii. Do not perform maintenance activities or stage equipment near storm water catch basins or any storm water 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. Drain and crush oil filters (and oil containers) before recycling or disposing. Store crushed oil filters and empty lubricant containers in a leak-proof container staged on secondary containment indoors. Hydraulic oil cans/filters used absorbent materials are not to be placed in trash carts or trash receptacles/dumpsters.

xii. Regular 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 contained and properly disposed of off site. No flushing of catch basin to receiving waters is allowed.

xiii. Store and properly dispose of all fluids generated from automotive or GSE maintenance. Remove batteries from salvage automotive or GSE. 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, such as "Do Not Dump. Leads to Boston Harbor" by catch basins and other inlets that convey storm water within 100 yards of any automotive or GSE maintenance location including outside aircraft hangers.

xvi. No wash waters from cleaning aircraft are to be discharged to a storm water drainage system.

11. <u>BMP for Minimizing and Eliminating Rubber Removal Sources</u>

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 Federal Aviation Administration (FAA) recommends several methods for removing rubber deposits and other contaminants from a runway surface including 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 the maintenance operation, improper management practices could result in discharges of the chemical solvents in the storm water runoff from runway areas.

Massport, currently uses sodium hydroxide in a several step process to periodically remove rubber deposits from the runways. The airport BMP Plan shall outline measures to minimize flows of these cleaning compounds and rubber materials into the drainage system. Massport shall notify the EPA and DEP of any changes to this procedure. There are no tenants which conduct such activities.

12. Porter Street Monitoring Plan

Massport shall establish a sampling program to characterize storm water quality related to airport activities in the Porter Street drainage area. The sampling program will consist of a minimum of three (3) sampling locations. Sampling points will be split between the northern and southern portions of the drainage area. Sampling locations will be chosen to obtain samples that are representative of airport activities within the Porter Street drainage area and minimize contributions from the adjacent storm water system operated by the Boston Water and Sewer Commission. Massport shall prepare and maintain a sampling plan for performing monitoring within the Porter Street drainage area.

Massport shall meet with the Boston Water and Sewer Commission to confirm that the available maps of the storm water sewer system in the drainage area for Porter Street storm water outfall are accurate. Additional information may be available from the maps and the work being performed to correct infrastructure problems with the storm water sewer system and the sanitary sewer system. Based on this information, Massport shall develop a Porter Street Monitoring Plan which summarize the information from the maps and establish representative locations that shall be sampled for the pollutant monitoring requirements at the Porter Street Outfall - 003A, 003B and 003C, as required in Tables I.A.1 and I.A2 and I.A.6, respectively. Massport has **90 days from the effective date** of this permit to develop and implement the Porter Street Monitoring Plan.

13. Runway/Perimeter Storm Water Outfalls Sampling Plan

Massport shall develop a Runway/Perimeter Storm Water Outfalls Sampling Plan to conduct quarterly sampling during wet weather events and biennial sampling during deicing episodes. Massport shall sample at least 15 percent of the 44 (or 7) runway/perimeter storm water outfalls. Massport shall use the following criteria when developing the sampling locations:

a. The runway being used during wet weather or a deicing episode, the planned pattern of runway and taxiway deicing, and the amount of deicer expected to be applied during the monitored event,

b. Likelihood that a pollutant will be present where monitoring,

c. Safety for the flights and the personnel conducting the sampling, and

d. Ability to obtain a sample from the outfall pipe.

The plan should consider all of the criteria above and be flexible from one storm event to another since the criteria could change such as runway being used. Massport has **90 days from the effective date** of this permit to develop and implement the Runway/Perimeter Storm Water Outfall Sampling Plan.

## C. MONITORING AND REPORTING

Monitoring results obtained during each month shall be summarized and reported on DMRs postmarked **no later than the 15th day of the following month.** Other monitoring results, reports, and certifications shall be submitted as required by the permit.

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

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

and

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
Northeast Regional Office
205b Lowell Street
Wilmington, MA 01887

In addition, copies of all Discharge Monitoring Reports required by this permit and the WET sampling results shall also be submitted to the State at the following address:

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

## D. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under Federal and State law, respectively. As such, all the terms and conditions of this Permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP pursuant to M.G.L. Chap. 21 § 43.

Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared invalid, illegal or otherwise issued in violation of State law, such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.

# Attachment A

## Marine Chronic
## Toxicity Test Procedure and Protocol

**Attachment B**

# Logan International Airport (Logan) Storm Water Co-Permittee Application

Attachment B

**Logan International Airport (Logan) Storm Water Co-Permittee Application**

**Co-Permittee at Logan Defined**: 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). A company meets the definition of a Co-Permittee if the company performs industrial activities at an air transportation facility, such as Logan International Airport (Logan), classified under Standard Industrial Classifications (SIC) 45 that have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations (see 40 C.F.R. § 122.26(b)(14)(viii)). Furthermore, a Co-Permittee includes a company that performs industrial activities at an air transportation facility as defined in the NPDES Stormwater Multi-Sector General Permit for Industrial Activities (see 65 FR 64745, Oct. 30, 2000 and 70 FR 72116, Dec. 1, 2005). For air transportation companies the industrial activities include "servicing, repairing, or maintaining aircraft and ground vehicles; equipment cleaning and maintenance (including vehicle and equipment rehabilitation mechanical repairs, painting, fueling, and lubrication); and deicing/anti-icing operations" (Proposed 2006 MSGP, Part 4, Subsection S at p. 134, referenced by 70 FR 72116, see also http://www.epa.gov/npdes/stormwater). A Co-Permittee includes a company that performs an activity at Logan that EPA has determined can contribute to a violation of a water quality standard (see 40 C.F.R. § 122.26(a)(v)), as it has for companies handling aircraft lavatory waste or any other sanitary waste device not directly piped to a Publicly Owned Treatment Works.

Below the Co-Permittee provides the following information related to its activities at Logan and a certifying official signs the form in accordance with 40 C.F.R. § 122.22(b).

Types of Activities (check all applicable activities):

- ☐ Deicing/Anti-icing Operations
- ☐ Vehicle Maintenance/Aircraft Maintenance:
  servicing, repairing, or maintaining aircraft and ground vehicles, and equipment cleaning and maintenance (including vehicle and equipment rehabilitation mechanical repairs, painting, fueling, and lubrication)
- ☐ Handling of aircraft lavatory waste or any other sanitary waste device not directly piped to a Publicly Owned Treatment Works.
- ☐ Other, please describe _____

Legal Name of Corporation: _____

Corporate Headquarters Address:

_____
_____
_____
_____

Local Address: _____
_____
_____
_____

On-site Environmental Contact:

Name and Title: _____

Phone Number: _____

E-mail: _____

**Certification and Signature**

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations (see 40 C.F.R. § 122.22(d)).

Name and Title of Certifying Official (please print or type): _____

Signature: _____

Date: _____

**Attachment C**

# Current List of Co-Permittees