AUTHORIZATION TO DISCHARGE UNDER
THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

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

Sprague Operating Resources LLC
2 International Drive, Suite 200
Portsmouth, NH 03801

is authorized to discharge from a facility located at

Sprague Quincy Terminal
728 South Artery
Quincy, MA 02169

to receiving water named

Town River Bay (Segment MA74-15)
Boston Bay Tributaries and Islands (Hydrologic Unit Code 0109000109)

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

This permit shall become effective upon signature.

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

This permit supersedes the permit issued on May 18, 2007.

This permit consists of 13 pages in Part I including effluent limitations, monitoring requirements, and 25 pages in Part II including Standard Conditions.

Signed this 9th day of May, 2013.

/S/ SIGNATURE ON FILE
Ken Moraff, Acting Director
Office of Ecosystem Protection
Environmental Protection Agency
Region I
Boston, MA

David Ferris, Director
Massachusetts Wastewater Management Program
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge treated storm water from Outfall Serial Number 002 to the Town River Bay. The discharge shall be limited and monitored by the Permittee as specified below:

Effluent Characteristic	**Discharge Limitation**		**Monitoring Requirements**[1]	
Parameter	**Average Monthly**	**Maximum Daily**	**Measurement Frequency**[2]	**Sample Type**
FLOW RATE[3]	---	600 gpm	When Discharging	Estimate
TOTAL FLOW[4]	Report (MGal/Month)	---	Monthly	Estimate
pH RANGE[5,6]	6.5 ≤ pH ≤ 8.5 Standard Units at any time		Monthly	Grab
TOTAL SUSPENDED SOLIDS	30 mg/l	100 mg/l	Monthly	Grab
OIL AND GREASE	---	15 mg/l	Monthly	Grab
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)[7]				
Benzo(a)anthracene	---	Report (µg/l)	Quarterly	Grab
Benzo(a)pyrene	---	Report (µg/l)	Quarterly	Grab
Benzo(b)fluoranthene	---	Report (µg/l)	Quarterly	Grab
Benzo(k)fluoranthene	---	Report (µg/l)	Quarterly	Grab
Chrysene	---	Report (µg/l)	Quarterly	Grab

Dibenzo(a,h)anthracene	---	Report (µg/l)	Quarterly	Grab
Indeno(1,2,3-cd)pyrene	---	Report (µg/l)	Quarterly	Grab
Naphthalene	---	Report (µg/l)	Quarterly	Grab
VOLATILE ORGANIC COMPOUNDS (VOCs)[8]				
Benzene	---	51 µg/l	Quarterly	Grab
Toluene	---	Report (µg/l)	Quarterly	Grab
Ethylbenzene	---	Report (µg/l)	Quarterly	Grab
Total Xylenes	---	Report (µg/l)	Quarterly	Grab

The effluent samples for outfall 002 shall be collected at the discharge point to the Town River Bay after treatment through the 8,000 gallon oil/water separator (OWS) prior to mixing with any other stream. Changes in sampling location must be approved in writing by the U.S. Environmental Protection Agency (EPA) or the Massachusetts Department of Environmental Protection (MassDEP).

Footnotes:

[1]All samples shall be grab samples taken within 30 minutes of the initiation of a discharge from the outfall where practicable, but in no case later than within the first hour of discharge from the outfall. All samples shall be tested in accordance with the procedures in 40 Code of Federal Regulations (CFR) §136, unless specified elsewhere in the permit. If no discharge occurs during a monitoring period, the Permittee shall follow the No Data Indicator Code guidelines found in the *NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs)*, which may be found on the EPA Region 1 web site at http://www.epa.gov/region1/enforcement/water/dmr.html.

[2]Sampling frequency of monthly is defined as the sampling of one discharge event (as defined above in Footnote 1) in each calendar month. Sampling frequency of quarterly is defined as the sampling of one discharge event (as defined above in Footnote 1) in each quarter. Quarters are defined as the interval of time between the months of: January through March, inclusive; April through June, inclusive; July through September, inclusive; and October through December, inclusive. Quarterly sampling shall be performed concurrently with the monthly monitoring event. The Permittee shall submit the results to EPA of any testing done in addition to that

required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR §122.41(1)(4)(ii).

[3]For Flow Rate, the maximum daily value represents the estimated maximum instantaneous flow rate identified by the Terminal as passing through the 8,000 gallon OWS for each day that storm water is discharged during the reported period. The maximum instantaneous flow rate, which is to be reported in units of gallons per minute (gpm), shall be based upon the summation of the pump curve value(s) for all pumps operating and controlling the rate of flow through the OWS when the discharge is occurring during the reporting period.

[4]For Total Flow, the value reported represents the estimated sum of each day's storm water volume for each day that storm water is discharged during that month. Total Flow shall be reported in the units of millions of gallons per month (Mgal/month). The Permittee shall also report the total number of days during the reporting period in which there was a discharge from the outfall (noted on the Discharge Monitoring Report Form under "Event Total" parameter).

[5]Requirement for State Certification.

[6]The pH of the effluent shall be in the range of 6.5 to 8.5 standard units and not more than 0.2 standard units outside of the naturally occurring range. There shall be no change from natural background conditions that would impair any use assigned to the class of the receiving water.

[7]The minimum level (ML) for analysis for each Polynuclear Aromatic Hydrocarbons (PAH) shall be no greater than 10 µg/L. The ML is not the minimum level of detection, but rather the lowest point on the curve used to calibrate the test equipment for the pollutant of concern. When reporting sample data at or below the ML, see the latest EPA Region 1 *NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs)* for guidance. Analysis must be completed using an EPA approved method in 40 CFR Part 136, Table IC – Non-Pesticide Organic Compounds.

[8]The ML for analysis for each Volatile Organic Compounds (VOC) shall be no greater than 2 µg/L. When reporting sample data at or below the ML, see the latest EPA Region 1 *NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs)* for guidance. Analysis must be completed using an EPA approved method in 40 CFR Part 136, Table IC – Non-Pesticide Organic Compounds.

PART I.A.1 (continued)

a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
b. The effluent shall not impart taste, turbidity, toxicity, radioactivity, or other properties which cause those waters to be unsuitable for the designated uses and characteristics ascribed to their use.
c. The effluent shall not cause objectionable discoloration of the receiving waters.
d. The effluent shall contain neither a visible oil sheen, foam, nor floating or settleable solids at any time.
e. The effluent shall not contain materials in concentrations or in combinations which would impair the uses designated by the classification of the receiving water.
f. The effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.
g. The results of sampling for any parameter above its required frequency must also be reported.

2. The Permittee shall report immediately the appearance of any size sheen attributable to the discharge from the Terminal to the appropriate U.S. Coast Guard Officer in accordance with Section 311 of the Clean Water Act (CWA). This requirement is in addition to any reporting requirements contained in the National Pollutant Discharge Elimination System (NPDES) permit.
3. There shall be no discharge of tank bottom water and/or bilge water alone or in combination with storm water discharge or other wastewater.
4. There shall be no discharge of hydrostatic test water or extracted groundwater alone or in combination with storm water discharge or other wastewater. The Permittee shall conduct routine observations of the surface of the 8,000 gallon OWS during hydrostatic testing, in order to detect any increases in the separated oil layer.
5. There shall be no discharge of any sludge and/or bottom deposits from any storage tank(s), basin(s), and/or diked area(s) to the receiving waters. Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, oil/water separators, petroleum product storage tanks, baffled storage tanks collecting spills, and tank truck loading rack sumps.
6. The Permittee shall inspect, operate, and maintain the OWSs at the facility to ensure that the Effluent Limitations and permit conditions are met. The Permittee shall ensure that all components of the facility's Storm Water Pollution Prevention Plan (SWPPP), including those which specifically address the operation and maintenance of the OWSs and other components of the storm water conveyance system are complied with.
7. The bypass of the 8,000 gallon OWS of storm water runoff, or water used at the facility is prohibited except where necessary to avoid loss of life, personal injury, or severe property damage. Each bypass shall be sampled for all the effluent characteristics identified in Part

I.A.1. of this permit (i.e. monthly and quarterly) and the results reported to EPA within forty five (45) days of the initiation of the bypass. These bypass reporting requirements are in addition to those already identified in 40 Code of Federal Regulations (CFR) §122.41(m) and Part II.B.4. of the Standard Conditions of this permit.

8. The Permittee shall not add chemicals (i.e. disinfectant agents, detergents, emulsifiers, etc.), chemical additives, or bioremedial agents, including microbes, to the collection and treatment system without prior approval from EPA and MassDEP. The Permittee shall notify EPA and MassDEP at the addresses in Part I.E. when it proposes to add or replace any chemicals, chemical additives, or bio-remedial agents to the collection and treatment system.
9. The Permittee shall not use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application. Pollutants which are not limited by this permit, but which have been specifically disclosed in the permit application, may be discharged up to the frequency and level disclosed in the application, provided that such discharge does not violate Section 307 or 311 of the CWA or applicable state water quality standards.
10. The Permittee shall notify EPA and MassDEP in writing within 10 days of becoming aware of any changes, planned or otherwise, in the operations at the Terminal that may have an effect on the permitted discharge.
11. The Permittee shall attach a copy of the laboratory case narrative to each DMR submitted to EPA and MassDEP for each reporting period. The laboratory case narrative shall include a copy of the laboratory data sheets for each analysis (identifying the test method, the analytical results, and the detection limits for each analyte) and provide a brief discussion of whether all appropriate QA/QC procedures were met and were within acceptable limits.
12. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR §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":
        i. One hundred micrograms per liter (100 ug/l);
        ii. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
        iii. Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.
    b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
        i. Five hundred micrograms per liter (500 µg/l);
        ii. One milligram per liter (1 mg/l) for antimony;
        iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or

iv. Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.

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

13. Numerical Effluent Limitations for Toxicants

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

14. 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.

B. UNAUTHORIZED DISCHARGES

This permit authorizes the Permittee to discharge only in accordance with the terms and conditions of this permit and only from the outfall listed in Part I.A.1 of this permit. Discharges of wastewater from any other point sources which are not authorized by this permit or other NPDES permits shall be reported in accordance with Part D.1.e.(1) of the Standard Conditions of this permit (twenty-four hour reporting).

C. SPECIAL CONDITIONS AND REQUIREMENTS

1. The permittee shall submit, **within 90 days of the effective date of the permit**, the measures taken to ensure that the maximum design flow of the OWSs will not be exceeded. This should include all methods of estimating or calculating flow rate, all structural and/or operational controls used to restrict the flow of storm water into each OWS, and all structural and/or operational controls used to control the discharge from each OWS.
2. Storm Water Pollution Prevention Plan (SWPPP)

a. The Permittee shall continue to implement, and maintain a SWPPP designed to reduce, or prevent, the discharge of pollutants in storm water to the receiving waters identified in this permit. The SWPPP shall be a written document that is consistent with the terms of this permit. Additionally, the SWPPP shall serve as a tool to document the Permittee's compliance with the terms of this permit. Development guidance and a

recommended format for the SWPPP are available on the EPA website for the Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activities (http://cfpub.epa.gov/npdes/stormwater/msgp.cfm).

b. The SWPPP shall be updated and certified by the Permittee **within 90 days of the effective date of this permit**. The Permittee shall certify that its SWPPP has been updated and shall be signed in accordance with the requirements identified in 40 CFR §122.22. A copy of this initial certification shall be sent to EPA and MassDEP **within 120 days of the effective date of this permit**.

c. The SWPPP shall be prepared in accordance with good engineering practices and shall be consistent with the general provisions for SWPPPs included in the most current version of the MSGP. In the current MSGP (effective May 27, 2009), the general SWPPP provisions are included in Part 5 and Part 8.AD. Specifically, the SWPPP shall document the selection, design, and installation of control measures and contain the elements listed below:

   i. A pollution prevention team with collective and individual responsibilities for developing, implementing, maintaining, revising and ensuring compliance with the SWPPP.

   ii. A site description which includes the activities at the facility; a general location map showing the facility, receiving waters, and outfall locations; and a site map showing the extent of significant structures and impervious surfaces, directions of storm water flows, and locations of all existing structural control measures, storm water conveyances, pollutant sources (identified in Part c. iii. below), storm water monitoring points, storm water inlets and outlets, and industrial activities exposed to precipitation such as, storage, disposal, material handling.

   iii. A summary of all pollutant sources which includes a list of activities exposed to storm water, the pollutants associated with these activities, a description of where spills have occurred or could occur, a description of non-storm water discharges, and a summary of any existing storm water discharge sampling data.

   iv. A description of all storm water controls, both structural and non-structural.

   v. A schedule and procedure for implementation and maintenance of the control measures described above and for the quarterly inspections and best management practices (BMPs) described below.

   vi. Sector specific SWPPP provisions included in Sector AD – Non-Classified Facilities.

d. The SWPPP shall document the appropriate BMPs implemented or to be implemented at the facility to minimize the discharge of pollutants in storm water to waters of the United States and to satisfy the non-numeric technology-based effluent limitations included in this permit. At a minimum, these BMPs shall be consistent with the control measures described in the most current version of the MSGP. In the current MSGP

(effective May 27, 2009), these control measures are described in Part 2.1.2. and Part 8.AD. Specifically, BMPs must be selected and implemented to satisfy the following non-numeric technology-based effluent limitations:

i. Minimizing exposure of manufacturing, processing, and material storage areas to storm water discharges.
ii. Good housekeeping measures designed to maintain areas that are potential sources of pollutants.
iii. Preventative maintenance programs to avoid leaks, spills, and other releases of pollutants in storm water discharged to receiving waters.
iv. Spill prevention and response procedures to ensure effective response to spills and leaks if or when they occur.
v. Erosion and sediment controls designed to stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants.
vi. Runoff management practices to divert, infiltrate, reuse, contain, or otherwise reduce storm water runoff.
vii. Proper handling procedures for salt or materials containing chlorides that are used for snow and ice control.
viii. Sector specific BMPs included in Sector AD – Non-Classified Facilities.

e. All areas with industrial materials or activities exposed to storm water and all structural control used to comply with effluent limits in this permit shall be inspected, at least once per quarter, by qualified personnel with one or more members of the storm water pollution prevention team. Inspections shall begin during the 1st full calendar quarter after the effective date of this permit. EPA considers quarters as follows: January to March; April to June; July to September; and October to December. Each inspection must include a visual assessment of storm water samples (from the outfall), which shall be collected within the first 30 minutes of discharge from a storm event, stored in a clean, clear glass or plastic container, and examined in a well-lit area for the following water quality characteristics: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of pollution. The Permittee shall document the following information for each inspection and maintain the records along with the SWPPP:

i. The date and time of the inspection and at which any samples were collected;
ii. The name(s) and signature(s) of the inspector(s)/sample collector(s);
iii. If applicable, why it was not possible to take samples within the first 30 minutes;
iv. Weather information and a description of any discharges occurring at the time of the inspection;
v. Results of observations of storm water discharges, including any observed discharges of pollutants and the probable sources of those pollutants;

vi. Any control measures needing maintenance, repairs or replacement; and,
vii. Any additional control measures needed to comply with the permit requirements.

f. The Permittee shall amend and update the SWPPP within 14 days of any changes at the facility that result in a significant effect on the potential for the discharge of pollutants to the waters of the United States. Such changes may include, but are not limited to: a change in design, construction, operation, or maintenance, materials storage, or activities at the facility; a release of a reportable quantity of pollutants as described in 40 CFR §302; or a determination by the Permittee or EPA that the BMPs included in the SWPPP appear to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity.

g. Any amended, modified, or new versions of the SWPPP shall be re-certified and signed by the Permittee in accordance with the requirements identified in 40 CFR §122.22. The Permittee shall also certify, at least annually, that the previous year's inspections and maintenance activities were conducted, results recorded, records maintained, and that the facility is in compliance with this permit. If the facility is not in compliance with any aspect of this permit, the annual certification shall state the non-compliance and the remedies which are being undertaken. Such annual certifications also shall be signed in accordance with the requirements identified in 40 CFR §122.22. The Permittee shall maintain at the facility a copy of its current SWPPP and all SWPPP certifications (the initial certification, re-certifications, and annual certifications) signed during the effective period of this permit, and shall make these available for inspection by EPA and MassDEP. In addition, the Permittee shall document in the SWPPP any violation of numeric or non-numeric storm water effluent limits with a date and description of the corrective actions taken.

D. REOPENER CLAUSE

This permit may be modified, or revoked and reissued in accordance with 40 CFR §122.62. The reason for modification or revocation may include, but is not limited to:

1. Material and substantial alterations or additions to the Facility or activity have occurred;
2. New information is received which was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance; or
3. An applicable effluent standard or limitation is issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the CWA, which:
    a. contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or
    b. 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 CWA.

E. MONITORING AND REPORTING

1. **For a period of one year from the effective date of the permit**, the Permittee may either submit monitoring data and other reports to EPA in hard copy form or report electronically using NetDMR, a web-based tool that allows permittees to electronically submit discharge monitoring reports (DMRs) and other required reports via a secure internet connection. **Beginning no later than one year after the effective date of the permit**, the Permittee shall begin reporting using NetDMR, unless the facility is able to demonstrate a reasonable basis that precludes the use of NetDMR for submitting DMRs and reports. Specific requirements regarding submittal of data and reports in hard copy form and for submittal using NetDMR are described below:
    a. Submittal of Reports Using NetDMR:
    NetDMR is accessed from: http://www.epa.gov/netdmr. **Within one year of the effective date of this permit**, the Permittee shall begin submitting DMRs and reports required under this permit electronically to EPA using NetDMR, unless the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports ("opt-out request").
    DMRs shall be submitted electronically to EPA no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees shall continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP.
    b. Submittal of NetDMR Opt-Out Requests:
    Opt-out requests must be submitted in writing to EPA for written approval at least sixty (60) days prior to the date a facility would be required under this permit to begin using NetDMR. This demonstration shall be valid for twelve (12) months from the date of EPA approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to EPA unless the Permittee submits a renewed opt-out request and such request is approved by EPA. All opt-out requests should be sent to the following addresses:

    Attn: NetDMR Coordinator
    U.S. Environmental Protection Agency, Water Technical Unit
    5 Post Office Square, Suite 100 (OES04-1)
    Boston, MA 02109-3912

and

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

c. Submittal of Reports in Hard Copy Form
Monitoring results shall be summarized for each calendar month and reported on separate hard copy Discharge Monitoring Report Forms (DMRs) postmarked no later than the 15th day of the month following the completed reporting period. All reports required under this permit shall be submitted as an attachment to the DMRs. Signed and dated originals of the **DMRs, and all other reports or notifications** required herein or in Part II shall be submitted to the Director at the following address:

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

Duplicate signed copies of **DMRs, and all other reports or notifications** required above, shall be submitted to the State at the following address:

Massachusetts Department of Environmental Protection
Bureau of Resource Protection
Northeast Regional Office
205B Lowell Street
Wilmington, Massachusetts 01887

And, **without DMRs**, to the State at the following address:

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

Any verbal reports, if required in Parts I and/or II of this permit, shall be made to both EPA and to MassDEP.

F. STATE PERMIT CONDITIONS

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

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

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

NPDES PART II STANDARD CONDITIONS
(January, 2007)

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PART II. A. GENERAL REQUIREMENTS

1. Duty to Comply

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

a. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.

b. The CWA provides that any person who violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any of such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Section 402 (a)(3) or 402 (b)(8) of the CWA is subject to a civil penalty not to exceed $25,000 per day for each violation. Any person who negligently violates such requirements is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both. Any person who knowingly violates such requirements is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

c. Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

Note: See 40 CFR §122.41(a)(2) for complete "Duty to Comply" regulations.

2. Permit Actions

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

3. Duty to Provide Information

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

4. Reopener Clause

The Regional Administrator reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA in order to bring all discharges into compliance with the CWA.

For any permit issued to a treatment works treating domestic sewage (including "sludge-only facilities"), the Regional Administrator or Director shall include a reopener clause to incorporate any applicable standard for sewage sludge use or disposal promulgated under Section 405 (d) of the CWA. The Regional Administrator or Director may promptly modify or revoke and reissue any permit containing the reopener clause required by this paragraph if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or contains a pollutant or practice not limited in the permit.

Federal regulations pertaining to permit modification, revocation and reissuance, and termination are found at 40 CFR §122.62, 122.63, 122.64, and 124.5.

5. Oil and Hazardous Substance Liability

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

6. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges.

7. Confidentiality of Information

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

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

(1) The name and address of any permit applicant or permittee;
(2) Permit applications, permits, and effluent data as defined in 40 CFR §2.302(a)(2).

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

8. Duty to Reapply

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

9. State Authorities

Nothing in Part 122, 123, or 124 precludes more stringent State regulation of any activity covered by these regulations, whether or not under an approved State program.

10. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, or local laws and regulations.

PART II. B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

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

2. Need to Halt or Reduce Not a Defense

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

3. Duty to Mitigate

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

4. Bypass

a. Definitions

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

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

b. Bypass not exceeding limitations

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Paragraphs B.4.c. and 4.d. of this section.

c. Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (Twenty-four hour reporting).

d. Prohibition of bypass

Bypass is prohibited, and the Regional Administrator may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
(3) i) The permittee submitted notices as required under Paragraph 4.c. of this section.
ii) The Regional Administrator may approve an anticipated bypass, after considering its adverse effects, if the Regional Administrator determines that it will meet the three conditions listed above in paragraph 4.d. of this section.

5. Upset

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

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph B.5.c. of this section are met. No determination made during

administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

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

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

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

PART II. C. MONITORING REQUIREMENTS

1. Monitoring and Records

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

b. Except for records for monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application except for the information concerning storm water discharges which must be retained for a total of 6 years. This retention period may be extended by request of the Regional Administrator at any time.

c. Records of monitoring information shall include:

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

d. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in the permit.

e. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by

imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

2. Inspection and Entry

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

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

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

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

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

PART II. D. REPORTING REQUIREMENTS

1. Reporting Requirements

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

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR§122.29(b); or
(2) The alteration or addition could significantly change the nature or increase the quantities of the pollutants discharged. This notification applies to pollutants which are subject neither to the effluent limitations in the permit, nor to the notification requirements at 40 CFR§122.42(a)(1).
(3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition or change may justify the application of permit conditions different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

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

c. Transfers. This permit is not transferable to any person except after notice to the Regional Administrator. The Regional Administrator may require modification or revocation and reissuance of the permit to change the name of the permittee and

incorporate such other requirements as may be necessary under the CWA. (See 40 CFR Part 122.61; in some cases, modification or revocation and reissuance is mandatory.)

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

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.

(2) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of the monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

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

e. Twenty-four hour reporting.

(1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances.

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

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

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

(3) The Regional Administrator may waive the written report on a case-by-case basis for reports under Paragraph D.1.e. if the oral report has been received within 24 hours.

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

g. Other noncompliance. The permittee shall report all instances of noncompliance not reported under Paragraphs D.1.d., D.1.e., and D.1.f. of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D.1.e. of this section.

h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Administrator, it shall promptly submit such facts or information.

2. Signatory Requirement

a. All applications, reports, or information submitted to the Regional Administrator shall be signed and certified. (See 40 CFR §122.22)

b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

3. Availability of Reports.

Except for data determined to be confidential under Paragraph A.8. above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA.

PART II. E. DEFINITIONS AND ABBREVIATIONS

1. Definitions for Individual NPDES Permits including Storm Water Requirements

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

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

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

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For total and/or fecal coliforms and Escherichia coli, the average shall be the geometric mean.

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

Average weekly discharge limitation means the highest allowable average of "daily discharges" measured during the calendar week divided by the number of "daily discharges" measured during the week.

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

Best Professional Judgment (BPJ) means a case-by-case determination of Best Practicable Treatment (BPT), Best Available Treatment (BAT), or other appropriate technology-based standard based on an evaluation of the available technology to achieve a particular pollutant reduction and other factors set forth in 40 CFR §125.3 (d).

Coal Pile Runoff means the rainfall runoff from or through any coal storage pile.

Composite Sample means a sample consisting of a minimum of eight grab samples of equal volume collected at equal intervals during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportional to flow, or a sample consisting of the same number of grab samples, or greater, collected proportionally to flow over that same time period.

Construction Activities - The following definitions apply to construction activities:

(a) Commencement of Construction is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

(b) Dedicated portable asphalt plant is a portable asphalt plant located on or contiguous to a construction site and that provides asphalt only to the construction site that the plant is located on or adjacent to. The term dedicated portable asphalt plant does not include facilities that are subject to the asphalt emulsion effluent limitation guideline at 40 CFR Part 443.

(c) Dedicated portable concrete plant is a portable concrete plant located on or contiguous to a construction site and that provides concrete only to the construction site that the plant is located on or adjacent to.

(d) Final Stabilization means that all soil disturbing activities at the site have been complete, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

(e) Runoff coefficient means the fraction of total rainfall that will appear at the conveyance as runoff.

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

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

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, and Pub. L. 97-117; 33 USC §§1251 et seq.

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

Director normally means the person authorized to sign NPDES permits by EPA or the State or an authorized representative. Conversely, it also could mean the Regional Administrator or the State Director as the context requires.

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

Discharge of a pollutant means:

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

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

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead

to a treatment works; and discharges through pipes, sewers, or other conveyances leading into privately owned treatment works.

This term does not include an addition of pollutants by any "indirect discharger."

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

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

EPA means the United States "Environmental Protection Agency".

Flow-weighted composite sample means a composite sample consisting of a mixture of aliquots where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab Sample – An individual sample collected in a period of less than 15 minutes.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the CWA.

Indirect Discharger means a non-domestic discharger introducing pollutants to a publicly owned treatment works.

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

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

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

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

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

Large and Medium municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and 40 CFR Part 122); or (ii) located in the counties with unincorporated urbanized

populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships, or towns within such counties (these counties are listed in Appendices H and I of 40 CFR 122); or (iii) owned or operated by a municipality other than those described in Paragraph (i) or (ii) and that are designated by the Regional Administrator as part of the large or medium municipal separate storm sewer system.

Maximum daily discharge limitation means the highest allowable "daily discharge" concentration that occurs only during a normal day (24-hour duration).

Maximum daily discharge limitation (as defined for the Steam Electric Power Plants only) when applied to Total Residual Chlorine (TRC) or Total Residual Oxidant (TRO) is defined as "maximum concentration" or "Instantaneous Maximum Concentration" during the two hours of a chlorination cycle (or fraction thereof) prescribed in the Steam Electric Guidelines, 40 CFR Part 423. These three synonymous terms all mean "a value that shall not be exceeded" during the two-hour chlorination cycle. This interpretation differs from the specified NPDES Permit requirement, 40 CFR § 122.2, where the two terms of "Maximum Daily Discharge" and "Average Daily Discharge" concentrations are specifically limited to the daily (24-hour duration) values.

Municipality means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribe organization, or a designated and approved management agency under Section 208 of the CWA.

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

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

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

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

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

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

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

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

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

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

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

NPDES means "National Pollutant Discharge Elimination System".

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

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

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved" State.

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

Point Source means any discernible, confined, and discrete conveyance, including but not limited to any pipe ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (see 40 CFR §122.2).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. §§2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

(a) Sewage from vessels; or

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

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

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

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

Publicly Owned Treatment Works (POTW) means any facility or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "State" or "municipality".

This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

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

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

Section 313 water priority chemical means a chemical or chemical category which:

(1) is listed at 40 CFR §372.65 pursuant to Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986);

(2) is present at or above threshold levels at a facility subject to EPCRA Section 313 reporting requirements; and

(3) satisfies at least one of the following criteria:

(i) are listed in Appendix D of 40 CFR Part 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols), or Table V (certain toxic pollutants and hazardous substances);
(ii) are listed as a hazardous substance pursuant to Section 311(b)(2)(A) of the CWA at 40 CFR §116.4; or
(iii) are pollutants for which EPA has published acute or chronic water quality criteria.

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

Sewage Sludge means any solid, semisolid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced wastewater treatment, scum, septage, portable toilet pumpings, Type III Marine Sanitation Device pumpings (33 CFR Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

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

Significant materials includes, but is not limited to: raw materials, fuels, materials such as solvents, detergents, and plastic pellets, raw materials used in food processing or production, hazardous substance designated under section 101(14) of CERCLA, any chemical the facility is required to report pursuant to 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.

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

Sludge-only facility means any "treatment works treating domestic sewage" whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to Section 405(d) of the CWA, and is required to obtain a permit under 40 CFR §122.1(b)(3).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Trust Territory of the Pacific Islands.

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

Storm water discharge associated with industrial activity means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. (See 40 CFR §122.26 (b)(14) for specifics of this definition.

Time-weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

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

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

For purposes of this definition, "domestic sewage" includes waste and wastewater from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in 40 CFR Part 503 as a "treatment works treating domestic sewage", where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 CFR Part 503.

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

Waters of the United States means:

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

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

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

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

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

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

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

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

(f) The territorial sea; and

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

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 CFR §423.11(m) which also meet the criteria of this definition) are not waters of the United States.

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

Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test. (See Abbreviations Section, following, for additional information.)

2. Definitions for NPDES Permit Sludge Use and Disposal Requirements.

Active sewage sludge unit is a sewage sludge unit that has not closed.

Aerobic Digestion is the biochemical decomposition of organic matter in sewage sludge into carbon dioxide and water by microorganisms in the presence of air.

Agricultural Land is land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture.

Agronomic rate is the whole sludge application rate (dry weight basis) designed:

(1) To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; and

(2) To minimize the amount of nitrogen in the sewage sludge that passes below the root zone of the crop or vegetation grown on the land to the ground water.

Air pollution control device is one or more processes used to treat the exit gas from a sewage sludge incinerator stack.

Anaerobic digestion is the biochemical decomposition of organic matter in sewage sludge into methane gas and carbon dioxide by microorganisms in the absence of air.

Annual pollutant loading rate is the maximum amount of a pollutant that can be applied to a unit area of land during a 365 day period.

Annual whole sludge application rate is the maximum amount of sewage sludge (dry weight basis) that can be applied to a unit area of land during a 365 day period.

Apply sewage sludge or sewage sludge applied to the land means land application of sewage sludge.

Aquifer is a geologic formation, group of geologic formations, or a portion of a geologic formation capable of yielding ground water to wells or springs.

Auxiliary fuel is fuel used to augment the fuel value of sewage sludge. This includes, but is not limited to, natural gas, fuel oil, coal, gas generated during anaerobic digestion of sewage sludge, and municipal solid waste (not to exceed 30 percent of the dry weight of the sewage sludge and auxiliary fuel together). Hazardous wastes are not auxiliary fuel.

Base flood is a flood that has a one percent chance of occurring in any given year (i.e. a flood with a magnitude equaled once in 100 years).

Bulk sewage sludge is sewage sludge that is not sold or given away in a bag or other container for application to the land.

Contaminate an aquifer means to introduce a substance that causes the maximum contaminant level for nitrate in 40 CFR §141.11 to be exceeded in ground water or that causes the existing concentration of nitrate in the ground water to increase when the existing concentration of nitrate in the ground water exceeds the maximum contaminant level for nitrate in 40 CFR §141.11.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 CFR §501.2, required to have an approved pretreatment program under 40 CFR §403.8 (a) (including any POTW located in a state that has elected to assume local program responsibilities pursuant to 40 CFR §403.10 (e) and any treatment works treating domestic sewage, as defined in 40 CFR § 122.2,

classified as a Class I sludge management facility by the EPA Regional Administrator, or, in the case of approved state programs, the Regional Administrator in conjunction with the State Director, because of the potential for sewage sludge use or disposal practice to affect public health and the environment adversely.

Control efficiency is the mass of a pollutant in the sewage sludge fed to an incinerator minus the mass of that pollutant in the exit gas from the incinerator stack divided by the mass of the pollutant in the sewage sludge fed to the incinerator.

Cover is soil or other material used to cover sewage sludge placed on an active sewage sludge unit.

Cover crop is a small grain crop, such as oats, wheat, or barley, not grown for harvest.

Cumulative pollutant loading rate is the maximum amount of inorganic pollutant that can be applied to an area of land.

Density of microorganisms is the number of microorganisms per unit mass of total solids (dry weight) in the sewage sludge.

Dispersion factor is the ratio of the increase in the ground level ambient air concentration for a pollutant at or beyond the property line of the site where the sewage sludge incinerator is located to the mass emission rate for the pollutant from the incinerator stack.

Displacement is the relative movement of any two sides of a fault measured in any direction.

Domestic septage is either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

Domestic sewage is waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

Dry weight basis means calculated on the basis of having been dried at 105 degrees Celsius (°C) until reaching a constant mass (i.e. essentially 100 percent solids content).

Fault is a fracture or zone of fractures in any materials along which strata on one side are displaced with respect to the strata on the other side.

Feed crops are crops produced primarily for consumption by animals.

Fiber crops are crops such as flax and cotton.

Final cover is the last layer of soil or other material placed on a sewage sludge unit at closure.

Fluidized bed incinerator is an enclosed device in which organic matter and inorganic matter in sewage sludge are combusted in a bed of particles suspended in the combustion chamber gas.

Food crops are crops consumed by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

Forest is a tract of land thick with trees and underbrush.

Ground water is water below the land surface in the saturated zone.

Holocene time is the most recent epoch of the Quaternary period, extending from the end of the Pleistocene epoch to the present.

Hourly average is the arithmetic mean of all the measurements taken during an hour. At least two measurements must be taken during the hour.

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

Industrial wastewater is wastewater generated in a commercial or industrial process.

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

Land with a high potential for public exposure is land that the public uses frequently. This includes, but is not limited to, a public contact site and reclamation site located in a populated area (e.g., a construction site located in a city).

Land with low potential for public exposure is land that the public uses infrequently. This includes, but is not limited to, agricultural land, forest and a reclamation site located in an unpopulated area (e.g., a strip mine located in a rural area).

Leachate collection system is a system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a sewage sludge unit.

Liner is soil or synthetic material that has a hydraulic conductivity of 1×10^{-7} centimeters per second or less.

Lower explosive limit for methane gas is the lowest percentage of methane gas in air, by volume, that propagates a flame at 25 degrees Celsius and atmospheric pressure.

Monthly average (Incineration) is the arithmetic mean of the hourly averages for the hours a sewage sludge incinerator operates during the month.

Monthly average (Land Application) is the arithmetic mean of all measurements taken during the month.

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

Other container is either an open or closed receptacle. This includes, but is not limited to, a bucket, a box, a carton, and a vehicle or trailer with a load capacity of one metric ton or less.

Pasture is land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or stover.

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

Permitting authority is either EPA or a State with an EPA-approved sludge management program.

Person is an individual, association, partnership, corporation, municipality, State or Federal Agency, or an agent or employee thereof.

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

pH means the logarithm of the reciprocal of the hydrogen ion concentration; a measure of the acidity or alkalinity of a liquid or solid material.

Place sewage sludge or sewage sludge placed means disposal of sewage sludge on a surface disposal site.

Pollutant (as defined in sludge disposal requirements) is an organic substance, an inorganic substance, a combination or organic and inorganic substances, or pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could on the basis on information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction) or physical deformations in either organisms or offspring of the organisms.

Pollutant limit (for sludge disposal requirements) is a numerical value that describes the amount of a pollutant allowed per unit amount of sewage sludge (e.g., milligrams per kilogram of total solids); the amount of pollutant that can be applied to a unit of land (e.g., kilograms per hectare); or the volume of the material that can be applied to the land (e.g., gallons per acre).

Public contact site is a land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.

Qualified ground water scientist is an individual with a baccalaureate or post-graduate degree in the natural sciences or engineering who has sufficient training and experience in ground water hydrology and related fields, as may be demonstrated by State registration, professional certification, or completion of accredited university programs, to make sound professional judgments regarding ground water monitoring, pollutant fate and transport, and corrective action.

Range land is open land with indigenous vegetation.

Reclamation site is drastically disturbed land that is reclaimed using sewage sludge. This includes, but is not limited to, strip mines and construction sites.

Risk specific concentration is the allowable increase in the average daily ground level ambient air concentration for a pollutant from the incineration of sewage sludge at or beyond the property line of a site where the sewage sludge incinerator is located.

Runoff is rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off the land surface.

Seismic impact zone is an area that has 10 percent or greater probability that the horizontal ground level acceleration to the rock in the area exceeds 0.10 gravity once in 250 years.

Sewage sludge is a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to:, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in treatment works.

Sewage sludge feed rate is either the average daily amount of sewage sludge fired in all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located for the number of days in a 365 day period that each sewage sludge incinerator operates, or the average daily design capacity for all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located.

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

Sewage sludge unit is land on which only sewage sludge is placed for final disposal. This does not include land on which sewage sludge is either stored or treated. Land does not include waters of the United States, as defined in 40 CFR §122.2.

Sewage sludge unit boundary is the outermost perimeter of an active sewage sludge unit.

Specific oxygen uptake rate (SOUR) is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in sewage sludge.

Stack height is the difference between the elevation of the top of a sewage sludge incinerator stack and the elevation of the ground at the base of the stack when the difference is equal to or less than 65 meters. When the difference is greater than 65 meters, stack height is the creditable stack height determined in accordance with 40 CFR §51.100 (ii).

State is one of the United States of America, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Commonwealth of the Northern Mariana Islands, and an Indian tribe eligible for treatment as a State pursuant to regulations promulgated under the authority of section 518(e) of the CWA.

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

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

Total hydrocarbons means the organic compounds in the exit gas from a sewage sludge incinerator stack measured using a flame ionization detection instrument referenced to propane.

Total solids are the materials in sewage sludge that remain as residue when the sewage sludge is dried at 103 to 105 degrees Celsius.

Treat or treatment of sewage sludge is the preparation of sewage sludge for final use or disposal. This includes, but is not limited to, thickening, stabilization, and dewatering of sewage sludge. This does not include storage of sewage sludge.

Treatment works is either a federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Unstable area is land subject to natural or human-induced forces that may damage the structural components of an active sewage sludge unit. This includes, but is not limited to, land on which the soils are subject to mass movement.

Unstabilized solids are organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

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

Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air.

Wet electrostatic precipitator is an air pollution control device that uses both electrical forces and water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

Wet scrubber is an air pollution control device that uses water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

3. Commonly Used Abbreviations

BOD	Five-day biochemical oxygen demand unless otherwise specified
CBOD	Carbonaceous BOD
CFS	Cubic feet per second
COD	Chemical oxygen demand
Chlorine	
Cl_2	Total residual chlorine
TRC	Total residual chlorine which is a combination of free available chlorine (FAC, see below) and combined chlorine (chloramines, etc.)

TRO	Total residual chlorine in marine waters where halogen compounds are present
FAC	Free available chlorine (aqueous molecular chlorine, hypochlorous acid, and hypochlorite ion)
Coliform	
Coliform, Fecal	Total fecal coliform bacteria
Coliform, Total	Total coliform bacteria
Cont. (Continuous)	Continuous recording of the parameter being monitored, i.e. flow, temperature, pH, etc.
Cu. M/day or M^3/day	Cubic meters per day
DO	Dissolved oxygen
kg/day	Kilograms per day
lbs/day	Pounds per day
mg/l	Milligram(s) per liter
ml/l	Milliliters per liter
MGD	Million gallons per day
Nitrogen	
Total N	Total nitrogen
NH_3-N	Ammonia nitrogen as nitrogen
NO_3-N	Nitrate as nitrogen
NO_2-N	Nitrite as nitrogen
NO_3-NO_2	Combined nitrate and nitrite nitrogen as nitrogen
TKN	Total Kjeldahl nitrogen as nitrogen
Oil & Grease	Freon extractable material
PCB	Polychlorinated biphenyl
pH	A measure of the hydrogen ion concentration. A measure of the acidity or alkalinity of a liquid or material
Surfactant	Surface-active agent

Temp. °C	Temperature in degrees Centigrade
Temp. °F	Temperature in degrees Fahrenheit
TOC	Total organic carbon
Total P	Total phosphorus
TSS or NFR	Total suspended solids or total nonfilterable residue
Turb. or Turbidity	Turbidity measured by the Nephelometric Method (NTU)
ug/l	Microgram(s) per liter
WET	"Whole effluent toxicity" is the total effect of an effluent measured directly with a toxicity test.
C-NOEC	"Chronic (Long-term Exposure Test) – No Observed Effect Concentration". The highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specified time of observation.
A-NOEC	"Acute (Short-term Exposure Test) – No Observed Effect Concentration" (see C-NOEC definition).
LC_{50}	LC_{50} is the concentration of a sample that causes mortality of 50% of the test population at a specific time of observation. The LC_{50} = 100% is defined as a sample of undiluted effluent.
ZID	Zone of Initial Dilution means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
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FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES PURSUANT TO THE CLEAN WATER ACT (CWA)

NPDES PERMIT NUMBER: MA0020869

PUBLIC NOTICE START AND END DATES: January 11, 2013 – February 9, 2013

NAME AND MAILING ADDRESS OF APPLICANT:

Sprague Operating Resources LLC
2 International Drive, Suite 200
Portsmouth, NH 03801

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Sprague Quincy Terminal
728 South Artery
Quincy, MA 02169

RECEIVING WATER: Town River Bay (Segment MA74-15)

RECEIVING WATER CLASSIFICATION: SB

SIC CODES: 5171 (Petroleum Bulk Stations & Terminals)

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Attachment 1: Sprague Quincy Terminal Location Map
Attachment 2: Sprague Quincy Terminal Site Plan
Attachment 3: Discharge Monitoring Data
Attachment 4: Summary of Sprague Quincy Terminal Product Storage Tanks
Attachment 5: Sprague Quincy Terminal Flow Diagram
Attachment 6: Summary of Essential Fish Habitat Designations

1. Proposed Action, Type of Facility, and Discharge Location

1.1 Proposed Action

The above applicant has applied to the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) for re-issuance of a National Pollutant Discharge Elimination System (NPDES) permit to discharge their treated storm water into the designated receiving water. The current permit ("2007 Permit"), was issued on May 18, 2007, and expired May 18, 2012. EPA received a completed permit renewal application from the Terminal dated October 28, 2011. Since the permit renewal application was deemed timely and complete by EPA, the permit has been administratively continued pursuant to 40 CFR § 122.6.

1.2 Type of Facility

The Sprague Quincy Terminal facility (the "Terminal") in Quincy is engaged in the receipt, storage, and distribution of petroleum products. The Terminal handles distillate (e.g., diesel, kerosene, and No. 2 Fuel oil) and residual petroleum products (e.g., No. 6 Fuel oil). The Terminal has remained relatively unchanged since 1962. Petroleum products are received in bulk quantities at the Terminal's marine vessel dock. Product is then transferred to aboveground storage tanks located within the Terminal's tank farm. Final distribution of product occurs at the Terminal's truck loading rack. Attachment 1 shows the location of the Terminal. Sprague Operating Resources LLC (Sprague) began operations at the Terminal in 1995.

1.3 Discharge Location

The Terminal is located on an industrial site between the Town River Bay and Southern Artery (U.S. Route 3A) in Quincy, Massachusetts (see Attachment 1). The Terminal is located along the southern bank of the Town River Bay and west of the confluence with the Weymouth Fore River. Outfall 002 is located at Latitude 42° 15' 9.03" Longitude 70° 58' 57.71." Attachment 2 shows the site plan for the Terminal, and the location of Outfall 002.

2. Description of Discharge

Storm water is collected at the terminal within three general areas: the secondary containment of the tank farm, the Terminal yard, including the truck loading rack, and the Terminal marine vessel dock. The 2007 permit authorized the discharge of treated storm water runoff at the Terminal through Outfall 001 and Outfall 002. Since the issuance of the 2007 Permit, Sprague eliminated Outfall 001, which discharged treated storm water from the facility's truck loading rack to the municipal sewer system after treatment in a 10,000-gallon oil/water separator (OWS 1). The sewer connection for Outfall 001 was terminated on March 24, 2008. All treated storm water from impervious and pervious surfaces at the Terminal currently discharges via Outfall 002 after treatment in an 8,000 gallon OWS (OWS 2). Storm water from the facility's truck loading rack continues to receive treatment in OWS 1 prior to treatment in OWS 2.

The receiving water is the Town River Bay, which flows from the east or west along the northern edge of the Terminal site, depending on the tidal stage. Discharge monitoring data from April 1, 2008 through April 30, 2012 for Outfall 002 is included in Attachment 3.

3. Receiving Water Description

The Terminal discharges through Outfall 002 to the Town River Bay (Segment MA74-15). This segment is 0.46 square miles from the headwaters at the Route 3A bridge in Quincy to the confluence with the Weymouth Fore River between Shipyard and Germantown Points, Quincy. The Terminal is approximately one mile west of the inlet to Town River Bay at the confluence with the Weymouth Fore River. MassDEP classifies this segment of the Town River Bay as Class SB (shellfishing).[1] Class SB waters are described in the Commonwealth of Massachusetts Surface Water Quality Standards (WQSs) (314 CMR 4.05(4)(b)) as follows: *"These waters are designated as a habitat for fish, other aquatic life and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. In certain waters, habitat for fish, other aquatic life and wildlife may include, but is not limited to, seagrass. Where designated in the tables to 314 CMR 4.00 for shellfishing, these waters shall be suitable for shellfish harvesting with depuration (Restricted and Conditionally Restricted Shellfish Areas). These waters shall have consistently good aesthetic value."* The Town River Bay is a Designated Port Area: a stretch of waterfront set aside primarily for industrial and commercial use. The Town River Bay is part of the Weymouth/Weir River Basin and the Boston Harbor Drainage Area.

The Town River Bay segment MA74-15 is listed as a Category 5 "Waters Requiring a TMDL" on the Proposed Massachusetts Year 2012 Integrated List of Waters (CWA Sections 303d and 305b)[2]. The pollutants requiring a TMDL are fecal coliform, dissolved oxygen, PCB in fish tissue, and other contaminants in fish and shellfish. The status of each designated use described in the Weymouth and Weir River Basin 2004 Water Quality Assessment Report[3] is presented in Table 1.

Table 1: Summary of Designated Uses for Town River Bay Segment MA74-15

Designated Use	**Status**
Aquatic Life	Not Assessed
Aesthetics	Not Assessed
Primary Contact	Support
Secondary Contact	Support
Fish Consumption/Shellfishing	Impaired

The Primary Contact use is supported in this segment because beach closures between 2002 and 2007 generally occurred less than 10% of the time for the bathing seasons. The Secondary Contact use is supported in this segment because beach closures between 2002 and 2007 generally occurred less than 10% of the time for the beach seasons. Shellfishing is restricted or prohibited in all of the segment's area. In addition, Town River bay is included in a fish consumption advisory issued by the Massachusetts Department of Public Health for Boston Harbor because of the presence of PCBs and other contaminants. As a result, the Fish Consumption/Shellfishing use is impaired. The Aquatic Life and Aesthetics uses have not been assessed.

[1] http://www.mass.gov/dep/water/laws/tblfig.pdf
[2] Massachusetts Year 2012 Integrated List of Waters (Proposed). MassDEP Division of Watershed Management Watershed Planning Program, Worcester, Massachusetts; January 2012.
[3] Weymouth and Weir River Basin 2004 Water Quality Assessment Report. MassDEP Division of Watershed Management, Worcester, Massachusetts; April 2010, Report Number: 74-AC-1.

Based on the nature of the storm water discharges for the Terminal, discharges from Outfall 002 are not expected to contribute to the existing impairments.

4. Permit Limitations and Conditions

The effluent limitations and all other requirements may be found in the Draft Permit. The basis for the limits and other permit requirements are described below.

5. Permit Basis: Statutory and Regulatory Authority

5.1 General Requirements

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a NPDES permit unless such a discharge is otherwise authorized by the CWA. The NPDES permit is the mechanism used to implement technology and water quality-based effluent limitations and other requirements including monitoring and reporting. The NPDES Draft Permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and applicable State regulations. The regulations governing the EPA NPDES permit program are generally found at 40 CFR §§ 122, 124, 125, and 136. In this permit, EPA considered (a) technology-based requirements, (b) water quality-based requirements, and (c) all limitations and requirements in the current/existing permit, when developing the permit limits.

5.2 Technology-Based Requirements

Subpart A of 40 CFR §125 establishes criteria and standards for the imposition of technology-based treatment requirements in permits under Section 301(b) of the CWA, including the application of EPA promulgated effluent limitations and case-by-case determinations of effluent limitations under Section 402(a)(1) of the CWA.

Technology-based treatment requirements represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the CWA (see 40 CFR §125 Subpart A) to meet best practicable control technology currently available (BPT) for conventional pollutants and some metals, best conventional control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants. In general, technology-based effluent guidelines for non-POTW facilities must be complied with as expeditiously as practicable, but in no case later than three years after the date such limitations are established, and in no case later than March 31, 1989 (see 40 CFR §125.3(a)(2)). A NPDES permit cannot authorize compliance schedules and deadlines which are not in accordance with the statutory provisions of the CWA.

EPA has not promulgated technology-based National Effluent Guidelines for storm water discharges from petroleum bulk stations and terminals (Standard Industrial Code 5171). In addition, the Terminal is excluded from Transportation Equipment Cleaning effluent guidelines (40 CFR § 442) for Marine Cargo Handling (Standard Industrial Code 4491). In the absence of technology-based effluent guidelines, the permit writer is authorized under Section 402(a)(1)(B) of the CWA to establish effluent limitations on a case-by-case basis using Best Professional Judgment (BPJ). The NPDES regulations in 40 CFR § 125.3(c)(2) state that permits developed on a case-by-case basis

under Section 402 (a)(1) of the CWA must consider (i) the appropriate technology for the category class of point sources of which the applicant is a member, based on available information, and (ii) any unique factors relating to the applicant.

5.3 Water Quality-Based Requirements

Section 301(b)(1)(C) of the CWA requires that effluent limitations based on water quality considerations be established for point source discharges when such limitations are necessary to meet state or federal water quality standards that are applicable to the designated receiving water. This is necessary when technology-based limitations would interfere with the attainment or maintenance of water quality in the receiving water.

Under Section 301(b)(1)(C) of the CWA and EPA regulations, NPDES permits must contain effluent limits more stringent than technology-based limits where more stringent limits are necessary to maintain or achieve state or federal water quality standards. Water quality standards consist of three parts: (1) beneficial designated uses for a water-body or a segment of a water-body; (2) numeric and/or narrative water quality criteria sufficient to protect the assigned designated use(s); and (3) anti-degradation requirements to ensure that once a use is attained it will not be degraded. The Massachusetts Surface Water Quality Standards (WQSs), found at 314 CMR 4.00, include these elements. The State will limit or prohibit discharges of pollutants to surface waters to assure that surface water quality standards of the receiving waters are protected and maintained or attained. These standards also include requirements for the regulation and control of toxic constituents and require that EPA criteria, established pursuant to Section 304(a) of the CWA, shall be used unless site-specific criteria are established.

The draft permit must limit any pollutant or pollutant parameter (conventional, non-conventional, and toxic) that is or may be discharged at a level that causes or has the "reasonable potential" to cause or contribute to an excursion above any water quality standard (40 CFR §122.44(d)). An excursion occurs if the projected or actual in-stream concentration exceeds an applicable water quality criterion. In determining "reasonable potential," EPA considers: (1) existing controls on point and non-point sources of pollution; (2) pollutant concentration and variability in the effluent and receiving water as determined from the permit's re-issuance application, monthly discharge monitoring reports (DMRs), and State and Federal Water Quality Reports; (3) sensitivity of the indicator species used in toxicity testing; (4) known water quality impacts of processes on waste waters; and (5) where appropriate, dilution of the effluent in the receiving water.

5.4 Anti-Backsliding

Anti-backsliding as defined in 40 CFR §122.44(l)(1) requires reissued permits to contain limitations as stringent as or more stringent than those of a permit, unless the circumstances allow application of one of the defined exceptions to this regulation. Anti-backsliding applies to limits contained in the existing permit and, therefore, these limits are continued in the draft permit. This Draft Permit does not contain less stringent limitations or conditions and is therefore in compliance with the anti-backsliding requirements of the CWA (see Sections 402(o) and 303(d)(4) of the CWA and 40 CFR §122.44(l)(1 and 2)).

5.5 Anti-Degradation

Federal regulations found at 40 CFR § 131.12 require that all existing uses in the receiving water, along with the level of water quality necessary to protect those existing uses, are maintained and protected. The Commonwealth of Massachusetts' anti-degradation provisions found in 314 CMR § 4.04 ensure that provisions in 40 CFR § 131.12 are met. The effluent limits in the draft permit should ensure that provisions in 314 CMR 4.04 are met. In accordance with Section 301(b)(1)(C) of the CWA, EPA is required to obtain certification from the state in which the discharge is located that WQSs or other applicable requirements of state law are met.

6. Explanation of the Permit's Effluent Limitations

6.1 Facility Information

The Terminal is located on an industrial site that covers approximately 10 acres. Petroleum products stored at the Terminal are delivered in bulk quantities by ship or barge to the marine vessel dock located adjacent to Town River Bay. Product off-loaded from a ship or barge is piped to the bulk storage tanks. The marine vessel dock piping is located above a concrete trough and catch basins. These conveyances direct storm water and potential spills to the continuous perimeter containment dike around the tank farm adjacent to Tank 9 and ultimately into OWS 2. Floatable booms create a containment area between the land and the vessel for additional protection in the event of a spill, as required by the City of Quincy.

The tank farm consists of 12 vertical above ground steel bulk storage tanks with associated product piping. The tank farm is used to store JP-5 (jet fuel), diesel fuel, kerosene, No. 2 fuel oil and No. 6 fuel oil. These tanks range in size from 5,000 to 146,000 barrels (bbls) (210,000 to 6,132,000 gallons). The Terminal uses an additional twelve above ground tanks (1 vertical, 11 horizontal) to store fuel additives including red dye, heatforce, and lubricity, diesel, No. 2 fuel oil, and Jet A filter. These tanks store between 100 gallons and 190 bbls (5,985 gallons). Mixing of petroleum products and additives occurs in a closed system within the fuel lines. The total gross storage capacity at the facility is approximately 674,021 barrels (28.3 million gallons). The maximum capacity and product storage information for each of the tanks and vessels on-site is summarized in Attachment 4.

A continuous perimeter containment dike surrounds the tank farm. Five secondary containment dikes, which function as firewalls, separate groups of bulk storage tanks within the tank farm. The containment dikes for Tanks 1, 2, 3, 4, 5, and 8 are not connected by drainage piping to the rest of the tank farm. Any storm water within these containment dikes is retained within the dikes until pumped to the tank 7 containment area via an automatic 100 gallons per minute (gpm) variable speed lift pump ("lift pump"). The containment dikes surrounding Tanks 6, 7, 9, 10, 11 and 12 are connected by a series of drainage culverts. Flow is directed towards a central swale through culverts beneath the containment dikes, to the Tank 7 containment area. The secondary containment has the capacity to contain a minimum of 110 percent of the contents of the largest tank.

The Terminal yard consists of impervious surface located along Southern Artery outside of the tank farm containment dikes. The Terminal yard contains the Terminal office building, a small shed containing absorbent materials, an employee parking lot, and a truck loading rack system. The truck loading rack system consists of five adjacent truck racks handling distillate petroleum products at the

main rack system, and two adjacent racks at the residual fuel storage rack where petroleum products are transferred to tanker trucks for distribution. The area is graded so that storm water and potential spills flow to the catch basin for OWS 1. The lift pump transfers water to the Tank 7 containment area.

There is an active remediation system on-site consisting of 35 monitoring wells located next to Southern Artery (See MassDEP 21e Release Tracking Number 3-0117). The presence of residual petroleum product in these wells is associated with historical releases at the Terminal and adjacent parcels between the 1970's through the 1990's. These wells contain oil skimmers that remove oil from the ground water via a selective membrane. The skimmers are checked monthly and oil, if present, is collected and recycled for use at the Terminal or made available for sale. Six of the 35 wells produce approximately 2 to 3 gallons of oil per month. No residual petroleum is discharged anywhere on-site. Groundwater is not extracted from the wells or discharged anywhere on-site. Remediation activities are documented by the Permittee's Licensed Site Professional and sent to MassDEP in an annual report.

Any solid or hazardous waste at the site is managed in accordance with regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA). Any hazardous waste storage at the Terminal is short-term (less than 90 days). Wastes are typically generated during clean out of product storage tanks or the OWSs. Product tank and OWS clean-out wastes are manifested and removed by a contractor, who is registered with the EPA as a hazardous waste transporter.

6.2 Permitted Outfall

The Terminal yard has an estimated runoff coefficient of 0.95. The runoff coefficient is a ratio of the amount of runoff to the amount of precipitation received. A high coefficient signifies a largely impervious surface. The truck loading rack area is graded so that storm water and potential spills flow to a catch basin. The catch basin empties directly into OWS 1, which is baffled. OWS 1 has a design flow rate of 100 gpm.

The tank farm has an estimated runoff coefficient of 0.88. The majority of the site drainage flows towards a central swale located near OWS 2. The swale is gravity fed into OWS 2, which is a gravity separator with no moving parts. OWS 2 is equipped with coalescer plates to enhance its removal efficiency. Flow through OWS 2 is controlled by limiting the rate at which water is pumped out of the separator. Absorbent booms are used and replaced regularly to remove oil from the OWSs.

Storm water from the Terminal was previously discharged from two points (Outfalls 001 and 002). As of March 24, 2008, discharges from Outfall 001 were terminated. Storm water collected in the containment dikes containing Tanks 1, 2, 3, 4, 5 and 8, and the Terminal yard are collected in OWS 1 adjacent to Tank 1, and pumped via lift pump controlled by a float switch into the Tank 7 containment area. An automatic sensing device disables the lift pump if oil is detected in OWS 1. The five containment dikes containing Tanks 6, 7, 9, 10, 11, and 12 have manually operated three-inch ball valves used to periodically release collected storm water to the Tank 7 containment area.

The containment area for Tank 7 is dewatered through the adjacent OWS 2 and into the Town River Bay via Outfall 002 by manually opening a three-inch ball valve located near Tank 7. Storm water discharges from this separator are controlled by a manually activated, electric transfer pump (transfer pump) located in the Tank 7 perimeter berm. The flow rate of the transfer pump is 600 gpm, which is equal to the design flow rate of OWS 2. Prior to operating the transfer pump, Terminal personnel inspect the standing water in the Tank 7 containment area for visible evidence of petroleum. If petroleum is observed, the storm water is not discharged through OWS 2.

Attachment 5 includes a diagram of the flows contributing to Outfall 002. No non-storm water discharges are included in the permitted outfall.

7. Derivation of Effluent Limits under the Federal CWA and the Commonwealth of Massachusetts' Water Quality Standards

7.1 Flow

From April 1, 2008 through April 30, 2012, the maximum monthly total flow reported was 864,000 million gallons per month (Mgal/mo) and the minimum flow reported was 0.0522 Mgal/mo. The daily flow rate consistently reported for this period was 600 gallons per minute (gpm).

OWSs are the typical treatment technology employed by petroleum bulk storage terminals for treatment of storm water runoff. This device uses gravity to separate lower-density oils from water, resulting in an oil phase above the oil/water interface and a heavier particulate phase on the bottom of the separator. The sizing of an OWS is based upon the flow rate, density of oil to be separated, desired percent removal of oil, and the operating temperature range.

The Terminal discharges storm water through Outfall 002 after treatment through the 8,000 gallon OWS 2 located adjacent to the Tank 7 containment area. The discharge side of OWS 2 is equipped with a manually operated 600-gpm transfer pump; therefore, the maximum flow rate of the system is 600 gpm. The 2007 permit included a flow rate limit to ensure that the flow through the OWS be maintained at or below the maximum design flow rate, such that the oil and/or particulate phases potentially present in the OWS is not entrained to the waterway. The Draft Permit maintains this daily maximum flow rate limit of 600 gpm.

In addition, the Draft Permit requires that the Permittee identify the measures and methods used to estimate the flow rate through the OWS and to control the intake and discharge of storm water through the OWS. The Draft Permit also requires that the Permittee provide written notification to EPA and MassDEP of any changes in the operations at the Terminal that may have an effect on the permitted discharge of wastewater from the facility, including changes that have the potential to cause flow through OWS 2 to exceed the maximum design flow rate.

7.2 pH

The 2007 Permit required that the pH of the effluent must be no less than 6.5 standard units (SU), and no greater than 8.5 SU. From April 1, 2008 through April 30, 2012, pH levels have ranged from 6.3 SU to 9.6 SU. The reported pH values were outside the 6.5 to 8.5 range on two occasions in 2008,

and one occasion in 2009. The Massachusetts Surface WQSs, 314 CMR 4.00, for Class SB waters require pH to be within the range of 6.5 to 8.5 SU and prohibit discharges that cause the in-stream pH to change more than 0.2 SU outside of the natural background range. Therefore, Draft Permit maintains a pH range of 6.5 to 8.5 SU, and specifies that the pH cannot change the naturally occurring pH range by more than 0.2 SU, consistent with Massachusetts WQSs.

7.3 Total Suspended Solids (TSS)

Heavy metals and polynuclear aromatic hydrocarbons (PAHs) are readily adsorbed onto particulate matter and the release of these compounds into the environment can be reduced by regulating the amount of suspended solids discharged. The 2007 Permit included a daily maximum effluent limit of 100 mg/L and a monthly average effluent limit of 30 mg/L for TSS. From April 1, 2008 through April 30, 2012, TSS levels have ranged from below laboratory practical quantitation limits (PQLs) to 34 mg/L. The reported daily maximum value for TSS were above the 2007 Permit limit of 30 mg/L on one occasion in 2010 and one occasion in 2012.

The limits in the 2007 Permit were based upon a BPJ determination. In making this determination, EPA considered the technology guidelines promulgated at 40 CFR Part 423 for the Steam Electric Power Point Source Category for similarities to discharges of storm water from petroleum bulk stations and terminals. Steam electric generating facilities, similar to petroleum bulk stations and terminals, frequently have bulk storage of petroleum products. In developing effluent limits for the Steam Electric Power Point Source Category, EPA identified TSS as a potential pollutant due to the drainage associated with equipment containing fuel oil and/or the leakage associated with the storage of oil.[4] EPA then considered the level of treatment that could be technologically achieved for TSS using an OWS and set corresponding limits in the guidelines (see 40 CFR Part 423.12 (b)(3)). Given the similarities between the storage of petroleum products at bulk stations and terminals and the storage of fuel oil at steam electric facilities, EPA is continuing to apply the TSS limits established for steam electric facilities at the Terminal.

The Draft Permit maintains the maximum daily limit of 100 mg/L, and an average monthly limit of 30 mg/L, monitored monthly, consistent with anti-backsliding requirements found in 40 CFR §122.44(l).

7.4 Oil and Grease (O&G)

The Massachusetts Surface WQSs, 314 CMR 4.05(4)(b)(7), state "*These waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.*" From April 1, 2008 through April 30, 2012, O & G levels have ranged from below the laboratory PQLs to 5.3 mg/L.

[4]See *Development Document for Effluent Limitations Guidelines and Standards and Pretreatment Standards for the Steam Electric Point Source Category*. EPA-440-1-82-029. Washington, DC. (November, 1982).

A concentration of 15 mg/L is recognized as the level at which many oils produce a visible sheen and/or cause an undesirable taste in fish.[5] The 2007 Permit limit of 15 mg/L is based on the benchmark level from EPA-Headquarters guidance to, and as a means of establishing a categorization within, the petroleum marketing terminals and oil production-facilities categories.[6] Performance data from terminals in Massachusetts and Maine continue to support that this effluent limit can be achieved through the proper operation of a correctly sized OWS and properly implemented best management practices (BMPs).

The Draft Permit maintains the maximum daily limit for oil and grease of 15 mg/L, monitored monthly, to ensure compliance with Massachusetts WQSs, and consistent with anti-backsliding requirements found in 40 CFR §122.44(l).

7.5 Polynuclear Aromatic Hydrocarbons (PAHs)

PAHs are a group of organic compounds found throughout the environment and typically formed through incomplete combustion of organic compounds. PAHs are also present in crude oil and some heavier petroleum derivatives and residuals such as No. 2 fuel oil. Discharge of these products can introduce PAHs into the environment where they can strongly adsorb to suspended particulates and biota. PAHs can also bio-accumulate in fish and shellfish.

The 2007 Permit added requirements for quarterly monitoring of the following PAHs, without limits:

1) Benzo(a)anthracene,
2) Benzo(b)fluoranthene,
3) Benzo(k)fluoranthene,
4) Chrysene,
5) Dibenzo(a,h)anthracene,
6) Indeno(1,2,3-cd)pyrene, and
7) Naphthalene.

There are 16 PAH compounds identified as priority pollutants under the CWA (See Appendix A to 40 CFR Part 423). Group I PAHs are comprised of seven known animal carcinogens. They are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, and Indeno(1,2,3-cd)pyrene. Group II PAHs are comprised of nine priority pollutant PAHs which are not considered carcinogenic alone, but which can enhance or inhibit the response of the carcinogenic PAHs. They are Acenaphthene, Acenaphthylene, Anthracene, Benzo(g,h,i)perylene, Fluoranthene, Fluorene, Napthalene, Phenanthrene, and Pyrene. Of these, Naphthalene is considered an important limiting pollutant parameter based upon its prevalence in petroleum products and its toxicity (i.e., naphthalene has been identified as a possible human carcinogen). Exposure is typically to a mixture of PAHs rather than to an individual PAH.

From April 1, 2008 through April 30, 2012, the six Group 1 PAH compounds monitored were not detected above the laboratory PQLs (ranging from 9.6 to 11 µg/L or 9.6 to 11 parts per billion).

[5] USEPA. 1976. *The Red Book – Quality Criteria for Water.* July 1976.
[6] See *Additional Guidance for Petroleum Marketing Terminals and Oil Production Facilities.* N-74-1. Washington, D.C. (July, 1974).

Group I PAHs have not been detected above their respective PQLs during any quarterly sampling event conducted at the Terminal since 2003. EPA has also noted a similar trend (of not detecting PAH compounds) for a number of other petroleum bulk stations and terminals located in the Boston Harbor Drainage Area.

Based on EPA's review of the data from this facility as well as other similar bulk storage facilities discharging into Boston Harbor, EPA has concluded that permit limits for PAH compounds at Outfall 002 are not required at this time. However, given the potential health concerns associated with PAHs, the type of petroleum products stored at the facility, and the historical levels of PAHs that have been documented in the sediment of Boston Harbor, the Draft Permit maintains the report-only monitoring requirements for Group I PAHs and Naphthalene without a limit. This requirement now includes Benzo(a)pyrene. If subsequent monitoring at the Terminal demonstrates that the concentration of these pollutants is significantly different from those described above, the Draft Permit may be modified pursuant to 40 CFR §122.62 to include effluent limitations.

The Draft Permit requires that the quantitative methodology used for PAH analysis must achieve the minimum level for analysis (the "ML") less than or equal to 10 µg/L. The ML is not the minimum level of detection, but rather the lowest point on the curve used to calibrate the test equipment for the pollutant of concern. Sample results for an individual compound that is at or below the ML should be reported according to the latest EPA Region 1 *NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs).*

7.6 Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX)

Refined petroleum products contain numerous types of hydrocarbons. Individual components partition to environmental media based on physical and chemical properties including solubility and vapor pressure. Rather than establishing effluent limits for every compound found in petroleum products, limits are typically established for the compounds that would be the most difficult to remove from the environment and demonstrate the greatest degree of toxicity. Generally, the higher the solubility of a volatile organic compound (VOC) in water, the more difficult it is to remove.

VOCs such as BTEX are found at relatively high concentrations in gasoline and light distillates including diesel fuel. BTEX concentrations decrease in the heavier grades of petroleum distillate products such as fuel oils. A traditional approach for petroleum spills involving gasoline or other light distillates has been to limit the aggregate parameter of BTEX compounds. This approach stems from available information concerning the health effects and physical properties of these compounds as well as the relatively high concentrations at which they are found in gasoline and light distillates.

Of these four compounds, benzene has the highest solubility, is one of the most toxic constituents, and is found at relatively high concentrations in the light distillates. The concentration of benzene in gasoline is approximately 20,000 parts per million.[7] The concentration in diesel fuel, although several orders of magnitude smaller than that found in gasoline, is still environmentally significant. The average percent by weight of benzene in diesel fuel is approximately 0.03 percent which is equivalent

[7] See "Composition of Petroleum Mixtures," Total Petroleum Hydrocarbon Criteria Working Group Series, T.L. Potter and K.E. Simmons, Vol. 2, p. 52 (May 1998).

to a concentration of benzene of approximately 300 parts per million. This value exceeds the EPA "organism only" human health WQC for benzene, 51 µg/L (or 51 parts per billion).[8] As a result, benzene is considered one of the most important limiting pollutant parameters found in gasoline or other light distillates. Benzene is also used as an indicator-parameter for regulatory and characterization purposes of storm water that comes into contact with light distillate products.

The 2007 Permit included a daily maximum effluent limit of 51 µg/L for benzene and required quarterly monitoring of toluene, ethylbenzene and total xylenes. From April 1, 2008 through April 30, 2012, the BTEX compounds were not detected above the laboratory PQLs (ranging from 1 to 3 µg/L or 1 to 3 parts per billion). However, the Draft Permit maintains quarterly monitoring requirements for BTEX and a maximum daily effluent limit of 51 µg/L for benzene to comply with anti-backsliding requirements.

In establishing the effluent limit for VOCs in the Draft Permit, EPA reviewed all appropriate criteria including the most recent *National Recommended Water Quality Criteria* and quarterly monitoring results for BTEX obtained from the discharges of the Terminal and similar facilities. The benzene limit of 51 µg/L is based on the "organism only" human health WQC. EPA believes that the inclusion of monitoring for BTEX with a limit for benzene is necessary for the protection of human health and to maintain the water quality standards established under Section 303 of the CWA.

In addition, the Draft Permit requires that the quantitative methodology used for BTEX analysis must achieve the minimum level for analysis less than or equal to 2 µg/L. Sample results for an individual compound that is at or below the ML should be reported according to the latest EPA Region 1 *NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs).*

7.7 Hydrostatic Testing

The tanks at the Terminal undergo an external visual inspection annually and an internal inspection once every five years. The internal inspections include spark tests and ultrasonic tests to determine the integrity of both the shell and bottom of the tank. After completing maintenance work, the vessels and/or pipe networks may be hydrostatically tested for leaks. Hydrostatic testing involves filling the vessel or pipe with fluid under pressure and monitoring pressure drops over time. If the system maintains a constant pressure, there are no leaks. Pipes and fuel lines undergo annual hydrostatic testing in a closed loop using fuel in place of water. The Permittee has reported that no wastewater discharge is produced from these activities and no hydrostatic-test water discharges have been reported at the facility since 1996.

As a precaution, the Draft Permit prohibits discharge of any hydrostatic test water to Town River Bay. The Draft Permit also requires the Permittee to observe the surface of the OWSs during hydrostatic testing, in order to detect any increases in the separated oil layer and to prevent inadvertent hydrocarbons released to the receiving water. In the event that there is evidence of such a release (e.g., visible oil sheen and/or noticeable increase in turbidity of discharge water), the Draft Permit requires the Permittee to immediately halt hydrostatic testing and take steps to correct the problem.

[8] see *National Recommended Water Quality Criteria*: http://water.epa.gov/scitech/swguidance/standards/current/index.cfm

7.8 Tank Bottom and Bilge Water

The bottom of many petroleum product storage tanks may contain a layer of water that has separated from the stored petroleum product due to the density difference between the product and water. As this water coalesces and then settles to the bottom of the tank, compounds including BTEX and PAHs found in the product above it are able to partition and dissolve into the water. The partitioning and dissolution allows the concentrations of some of the more soluble and denser petroleum components to reach toxic levels. Facility operators drain this layer of water to prevent transfer with the finished product as well as to free up valuable storage space.

Whereas storm water contacts only those hydrocarbons spilled on the ground and then only for short periods of time; tank bottom and bilge water remains in intimate proximity with petroleum derivatives for prolonged periods, allowing toxic pollutants to dissolve into the aqueous phase. EPA Region I considers both tank-bottom and bilge water "process wastewater," since soluble toxic materials can partition from the petroleum product into the water over time. To protect the Town River Bay from toxic pollutants dissolved in tank-bottom and bilge water, EPA is prohibiting the Permittee from discharging any tank-bottom or bilge water alone or in combination with storm water or other wastewater unless specifically approved by EPA and MassDEP. All tank bottom water obtained from the bulk storage tanks is consolidated and sent off-site for treatment and/or disposal.

7.9 Storm Water Pollution Prevention Plan (SWPPP)

This Terminal engages in activities that could result in the discharge of pollutants to waters of the United States either directly or indirectly through storm water runoff. These operations include at least one of the following in an area potentially exposed to precipitation or storm water: material storage, in-facility transfer, material processing, material handling, or loading and unloading. Specifically, at this Terminal, routine maintenance and cleaning of the oil/water separators for both sludge layer and oil layer are examples of material storage, processing and handling operations that shall continue to be included in the SWPPP. To control activities/operations that could contribute pollutants to waters of the United States and potentially violate Massachusetts WQSs, the Draft Permit requires the facility to continue to implement, and maintain a SWPPP documenting the application of best management practices (BMPs) appropriate for this specific facility (See Sections 304(e) and 402(a)(1) of the CWA and 40 CFR §122.44(k)).

The goal of the SWPPP is to reduce, or prevent, the discharge of pollutants through the storm water system. The SWPPP serves to document the selection, design and installation of control measures, including BMPs. Additionally, the SWPPP requirements in the Draft Permit are intended to facilitate a systematic approach for the Permittee to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used to achieve compliance with the conditions of this permit. The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants, which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the Terminal. The SWPPP documents the appropriate BMPs implemented or to be implemented at the facility to satisfy the non-numeric technology-based effluent limitations included in the Draft Permit. These non-numeric effluent limitations support, and are equally enforceable as, the numeric effluent limitations included in the Draft Permit.

This process involves the following four main steps:

1. Forming a team of qualified facility personnel who will be responsible for developing and updating the SWPPP and assisting the Terminal manager in its implementation;
2. Assessing the potential storm water pollution sources;
3. Selecting and implementing appropriate management practices and controls for these potential pollution sources; and
4. Reevaluating, periodically, the effectiveness of the SWPPP in preventing storm water contamination and in complying with the various terms and conditions of the Draft Permit.

8. Essential Fish Habitat (EFH)

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq. (1998)), EPA is required to consult with the National Marine Fisheries Service (NMFS) if EPA's actions or proposed actions that it funds, permits, or undertakes, may adversely impact any essential fish habitat, such as waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity (16 U.S.C. § 1802(10)). "Adversely impact" means any impact which reduces the quality and/or quantity of EFH (50 CFR §600.910(a)). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. Essential fish habitat is only designated for species for which federal fisheries management plans exist (16 U.S.C. §1855(b)(1)(A)) EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999.

EPA has determined that the Town River Bay is covered by the EFH designation for estuarine systems at Latitude 42° 15' 9.03" Longitude 70° 58' 57.71" as determined by the NOAA EFH Mapper.[9] A review of the relevant essential fish habitat information provided by NMFS indicates that EFH has been designated for Little Skate and Winter Skate within the NMFS boundaries encompassing the outfall location.[10] However, these species are not included in the EFH designated for 31 managed species in Boston Harbor. A copy of the managed species within the EFH is included in Attachment 6.

EPA has concluded that the limits and conditions contained in this draft permit minimize adverse effects to the EFH and managed species, if present, for the following reasons:

- The frequency of discharge from the Terminal is limited (average of three times per month);
- The Terminal withdraws no water from the Town River Bay; therefore no life stages of EFH species are vulnerable to impingement or entrainment from this facility;
- The effluent limitations and other permit requirements identified in this Fact Sheet are designed to be protective of all aquatic species, including those with EFH designations; and
- The permit prohibits any violation of Massachusetts WQSs.

[9] NOAA EFH Mapper available at http://www.habitat.noaa.gov/efhmapper/
[10] See http://www.nefmc.org/skates/fmp/skate_final_fmp_sec3.PDF

EPA believes that the conditions and limitations contained within the draft permit adequately protect all aquatic life, including those species with EFH designation in Boston Harbor. Impacts associated with issuance of this permit to the EFH species, their habitat and forage, have been minimized to the extent that no significant adverse impacts are expected. Further mitigation is not warranted. If adverse impacts to EFH are detected because of this permit action, or if new information is received that changes the basis for EPA's conclusion, NMFS will be notified and an EFH consultation will be initiated.

9. Endangered Species Act (ESA)

Under Section 7(a) of the Endangered Species Act, every federal agency is required to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize federally listed endangered or threatened species of fish, wildlife, or plants, or result in the adverse modification of critical habitat of such species. EPA initiates consultation concerning listed species under their purviews with the United States Fish and Wildlife Service (USFWS) for freshwater species, and the NMFS for marine species and anadromous fish.

No federally listed threatened or endangered species have been identified for the Town of Quincy.[11] In addition, EPA has reviewed the federal endangered or threatened species of fish, wildlife, and plants in Norfolk County to determine if the re-issuance of this NPDES permit could potentially impact any such listed species. No threatened species were identified for Norfolk County.[12]

The known distribution of two endangered species of anadromous fish which occur in Massachusetts, shortnose sturgeon (*Acipenser brevirostrom*) and Atlantic sturgeon (*Acipenser oxyrinchus*), include the Merrimack and Connecticut Rivers, and the Merrimack and Taunton Rivers, respectively.[13] However, adults may occur in estuarine and coastal habitats in Massachusetts. In addition, threatened and endangered species of whale and sea turtle may be present in Boston Harbor.

The Terminal is located along a tidal estuary near the confluence with the Weymouth Fore River, separated from Quincy Bay and greater Boston Harbor by a segment of land that forms Houghs Neck. EPA received guidance from NMFS for this area which stated that it is "extremely unlikely that there would be any NMFS listed species in Town River Bay (or even Quincy Bay)," and that NMFS agreed with a 'no species present' determination.[14] Based on this assessment, consultation with NMFS under Section 7 of the ESA is not required.

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[11]See listings for Quincy in "Rare Species Occurrences by Town" at http://www.mass.gov/dfwele/dfw/nhesp/info_by_town.htm

[12]See listings for Norfolk County in *Federally Listed Endangered and Threatened Species in Massachusetts* at http://www.fws.gov/newengland/EndangeredSpec-Consultation_Project_Review.htm

[13]See documents for shortnose sturgeon and Atlantic sturgeon at http://www.mass.gov/dfwele/dfw/nhesp/species_info/mesa_list/mesa_list.htm

[14]Correspondence from Julie Crocker, NMFS, to Eric P. Nelson, EPA Region 1, February 6, 2010 regarding discharges to Town River Bay segment (MA74-15) from the Sprague Twin Rivers Technology Terminal, 740 Washington Street, Quincy, MA.

10. Monitoring

The monitoring requirements have been established to yield data representative of the Terminal's pollutant discharges under the authority of Sections 308(a) and 402(a)(2) of the CWA and consistent with 40 CFR §§ 122.41 (j), 122.43(a), 122.44(i) and 122.48. The approved analytical procedures for sample analysis are found in 40 CFR Part 136 unless other procedures are explicitly required in the permit. The Permittee is obligated to monitor and report sampling results to EPA and the MassDEP within the time specified within the permit. Timely reporting is essential for the regulatory agencies to expeditiously assess compliance with permit conditions.

The Draft Permit includes new provisions related to DMR submittals to EPA and the State. The Draft Permit requires that, no later than one year after the effective date of the permit, the Permittee submit all monitoring data and other reports required by the permit to EPA using NetDMR, unless the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports ("opt-out request"). In the interim (until one year from the effective date of the permit), the Permittee may either submit monitoring data and other reports to EPA in hard copy form, or report electronically using NetDMR.

NetDMR is a national web-based tool for regulated CWA permittees to submit DMRs electronically via a secure Internet application to EPA through the Environmental Information Exchange Network. NetDMR allows participants to discontinue mailing in hard copy forms under 40 CFR § 122.41 and § 403.12. EPA currently conducts free training on the use of NetDMR, and anticipates that the availability of this training will continue to assist permittees with the transition to use of NetDMR. NetDMR can be accessed at http://www.epa.gov/netdmr. Further information about NetDMR, including contacts for EPA Region 1, information on upcoming trainings, and contact information for Massachusetts, is provided on this website.

The Draft Permit requires the Permittee to report monitoring results obtained during each calendar month using NetDMR, no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees must continue to send hard copies of reports other than DMRs to MassDEP until further written notice from MassDEP.

The Draft Permit also includes an "opt-out" request process. Permittees who believe they cannot use NetDMR due to technical or administrative infeasibilities, or other logical reasons, must demonstrate the reasonable basis that precludes the use of NetDMR. These permittees must submit the justification, in writing to EPA, at least sixty (60) days prior to the date the Terminal would have otherwise been required to begin using NetDMR. Opt-outs become effective upon the date of written approval by EPA and are valid for twelve (12) months. The opt-outs expire at the end of this twelve (12) month period. Upon expiration, the permittee must submit DMRs and reports to EPA using NetDMR, unless the permittee submits a renewed opt-out request sixty (60) days prior to expiration of its opt-out, and such a request is approved by EPA.

Until electronic reporting using NetDMR begins, or for those permittees with written approval from EPA to continue to submit hard copies of DMRs, the Draft Permit requires that submittal of DMRs and other reports required by the permit continue in hard copy format. Hard copies of DMRs must be postmarked no later than the 15th day of the month following the completed reporting period.

11. State Certification Requirements

EPA may not issue a permit unless the MassDEP certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Surface Water Quality Standards or unless state certification is waived. The staff of the MassDEP has reviewed the draft permit and advised EPA that the limitations are adequate to protect water quality. EPA has requested permit certification by the State pursuant to 40 CFR §124.53 and expects that the draft permit will be certified.

12. Comment Period, Hearing Requests, and Procedures for Final Decisions

All persons, including applicants, who believe any condition of the Draft Permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to Shauna Little, U.S. EPA, Office of Ecosystem Protection, Industrial Permits Branch, 5 Post Office Square, OEP06-1, Boston, Massachusetts 02109-3912. Any person, prior to such date, may submit a request in writing for a public hearing to consider the Draft Permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public meeting may be held if the criteria stated in 40 CFR §124.12 are satisfied. In reaching a final decision on the Draft Permit, the EPA will respond to all significant comments and make these responses available to the public at EPA's Boston office. Following the close of the comment period, and after any public hearings, if such hearings are held, the EPA will issue a Final Permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within 30 days following the notice of the Final Permit decision, any interested person may submit a petition for review of the permit to EPA's Environmental Appeals Board consistent with 40 CFR §124.19.

13. EPA and MassDEP Contacts

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays, from the EPA and MassDEP contacts below:

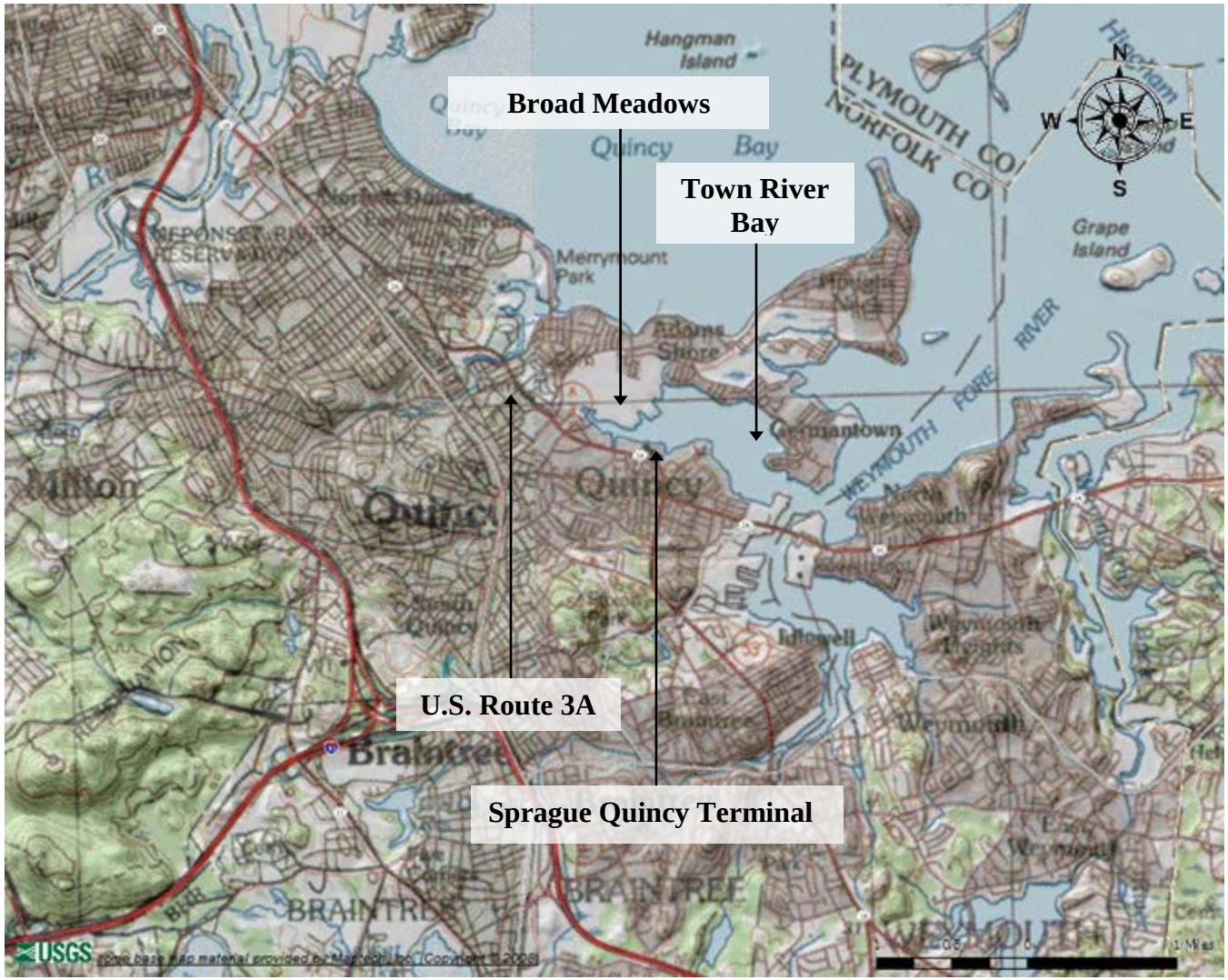
Shauna Little, EPA– Region 1
5 Post Office Square, Suite 100 (OEP06-1)
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1989
FAX: (617) 918-0989
Email: little.shauna@epa.gov

Claire A. Golden, MassDEP
Division of Watershed Management
Surface Water Discharge Permit Program
205B Lowell Street
Wilmington, Massachusetts 01887
Telephone: (978) 694-3244
FAX: (978-) 694-3498
Email: claire.golden@state.ma.us

12/10/12

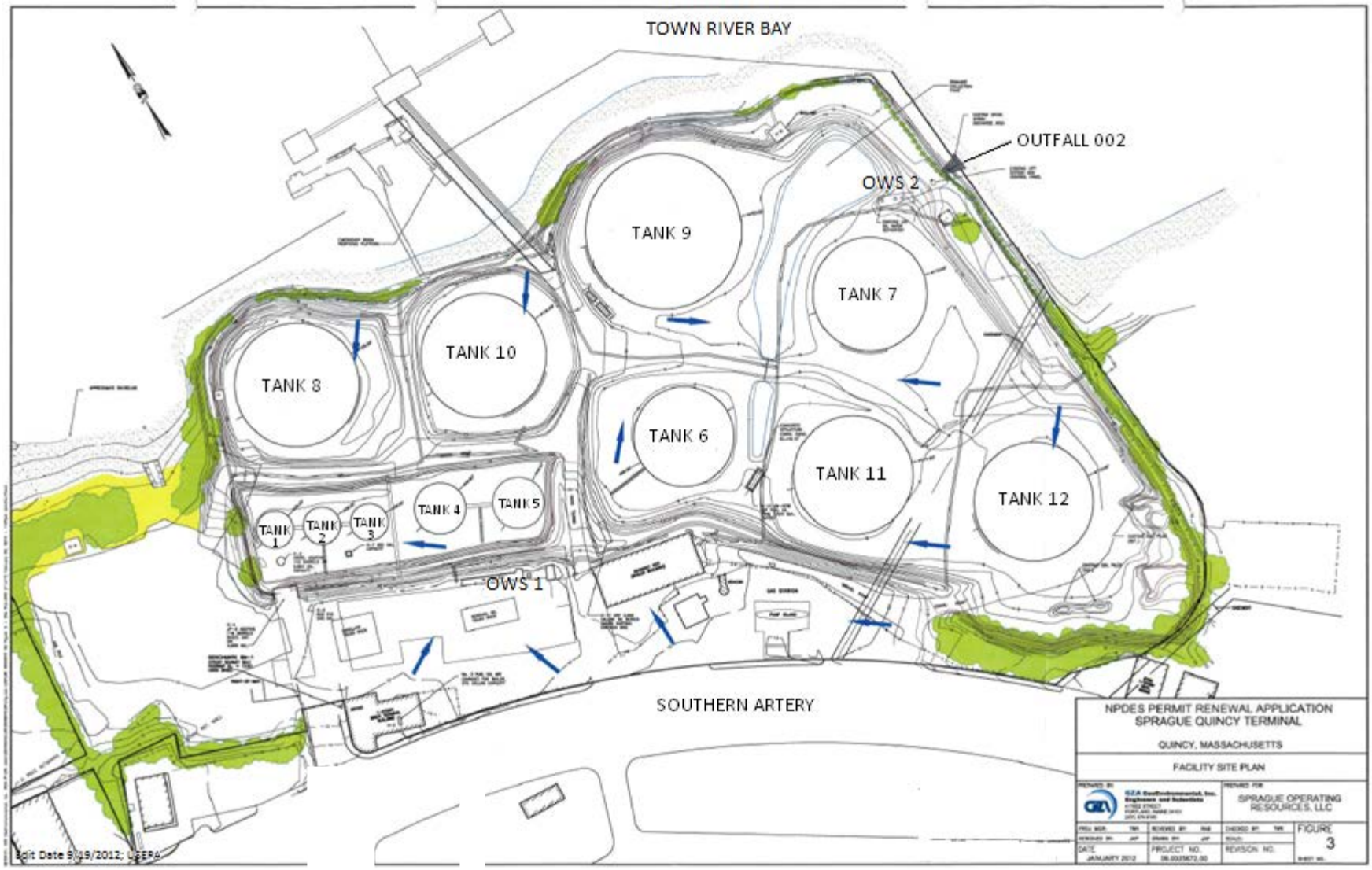
Stephen S. Perkins, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

Attachment 1: Sprague Quincy Terminal Location Map



Source: http://water.usgs.gov/osw/streamstats/massachusetts.html

Attachment 2: Sprague Quincy Terminal Site Plan



Attachment 3: Discharge Monitoring Data

SPRAGUE QUINCY TERMINAL - MA0020869
Outfall Serial Number 002
Monthly Reporting

Monitoring Period End Date	Flow		pH		TSS		Oil & Grease	Number of Events
	gal/min	Mgal/mo	SU	SU	Mg/L	Mg/L	Mg/L	#
	Rate	Total	Minimum	Maximum	Monthly Avg	Daily Max	Daily Max	Total
04/30/2008	600.	108000.	7.1	7.1	---	---	---	2.
05/31/2008	600.	12000.	7.4	7.4	6.	6.	---	1.
06/30/2008	600.	18000.	7.4	7.4	---	---	---	1.
07/31/2008	600.	423000.	7.4	7.4	6.8	6.8	---	5.
08/31/2008	600.	180000.	7.1	7.1	---	---	---	1.
09/30/2008	600.	.0522	7.1	7.1	---	---	---	4.
10/31/2008	600.	108000.	7.9	7.9	22.	22.	---	1.
11/30/2008	600.	468000.	9.6	9.6	4.4	4.4	---	5.
12/31/2008	600.	864000.	9.5	9.5	---	---	---	6.
01/31/2009	Frozen Conditions							
02/28/2009	600.	504000.	7.	7.	14.	14.	---	5.
03/31/2009	600.	153000.	7.8	7.8	---	---	---	2.
04/30/2009	600.	414000.	9.6	9.6	---	---	---	4.
05/31/2009	600.	.099	7.6	7.6	---	---	---	1.
06/30/2009	600.	.09	7.3	7.3	18.	18.	---	1.
07/31/2009	600.	378000.	6.7	6.7	---	---	---	5.
08/31/2009	No Discharge							
09/30/2009	600.	594000.	7.8	7.8	---	---	---	5.
10/31/2009	600.	756000.	7.6	7.6	---	---	---	5.
11/30/2009	600.	95760.	7.6	7.6	---	---	---	1.
12/31/2009	600.	.639	7.	7.	---	---	---	6.
01/31/2010	600.	.9	6.9	6.9	---	---	---	1.
02/28/2010	600.	.396	7.2	7.2	33.	33.	---	2.
03/31/2010	600.	.2376	7.1	7.1	---	---	---	9.
04/30/2010	600.	288000.	7.6	7.6	---	---	---	1.
05/31/2010	No Discharge							
06/30/2010	600.	.09	6.7	6.7	8.8	8.8	---	3.
07/31/2010	ND							
08/31/2010	600.	.585	7.7	7.7	---	---	---	4.
09/30/2010	No Discharge							
10/31/2010	600.	.243	7.7	7.7	---	---	---	2.
11/30/2010	600.	.342	7.5	7.5	4.	4.	5.3	5.
12/31/2010	600.	.09	7.1	7.1	---	---	---	2.
01/31/2011	600.	.18	7.3	7.3	5.6	5.6	---	2.
02/28/2011	600.	.31788	6.7	6.7	4.8	4.8	---	6.
03/31/2011	600.	.441	6.8	6.8	4.8	4.8	---	6.
04/30/2011	600.	.324	6.7	6.7	4.4	4.4	---	3.

05/31/2011	600.	.234	7.5	7.5	---	---	---	2.
06/30/2011	600.	.252	7.9	7.9	---	---	---	2.
07/31/2011	600.	.288	7.4	7.4	10.	10.	---	2.
08/31/2011	600.	.378	7.1	7.1	---	---	---	7.
09/30/2011	600.	495000.	7.2	7.2	---	---	---	3.
10/31/2011	600.	810000.	6.9	6.9	---	---	---	7.
11/30/2011	600.	612000.	7.2	7.2	---	---	---	6.
12/31/2011	600.	522000.	6.6	6.6	---	---	---	4.
01/31/2012	600.	180000.	7.3	7.3	---	---	---	3.
02/29/2012	600.	59760.	7.5	7.5	6.	6.	---	1.
03/31/2012	600.	78000.	6.7	6.7	---	---	---	1.
04/30/2012	600.	198000.	6.3	6.3	34.	34.	---	1.
2007 Permit Limits	600 gal/min	Report	6.5 SU	8.5 SU	30 mg/L	100 mg/L	15 mg/L	Report
Minimum	600.	.0522	6.3	6.3	4.	4.	5.3	1.
Maximum	1000.	864000.	9.6	9.6	34.	34.	5.3	9.
Average	609.	189057.	7.4	7.4	11.7	11.7	5.3	3.
Standard Deviation	60.	258149.	0.7	0.7	10.	10.	Not Applicable	2.
# of measurements	49	49	49	49	49	49	49	49

Note: --- = not detected above practical quantitation limit (PQL).

SPRAGUE QUINCY TERMINAL - MA0020869
Outfall Serial Number 002
Quarterly Reporting

Monitoring Period End Date	Benzene	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Ethylbenzene	Indeno(1,2,3-cd) pyrene	Toluene	Xylene (m+o+p)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max	Daily Max
06/30/2008	---	---	---	---	---	---	---	---	---	3.
09/30/2008	---	---	---	---	---	---	---	---	---	3.
12/31/2008	---	---	---	---	---	---	---	---	---	3.
03/31/2009	---	---	---	---	---	---	---	---	---	3.
06/30/2009	---	---	---	---	---	---	---	---	---	---
09/30/2009	---	11.	11.	11.	11.	11.	---	11.	---	---
12/31/2009	---	---	---	---	---	---	---	---	---	3.
03/31/2010	---	---	---	---	---	---	---	---	---	---
06/30/2010	---	---	---	---	---	---	---	---	---	---
09/30/2010	---	---	---	---	---	---	---	---	---	3.
12/31/2010	---	---	---	---	---	---	---	---	---	---
03/31/2011	---	---	---	---	---	---	---	---	---	3.
06/30/2011	---	---	---	---	---	---	---	---	---	3.
09/30/2011	---	---	---	---	---	---	---	---	---	3.
12/31/2011	---	---	---	---	---	---	---	---	---	3.
03/31/2012	---	---	---	---	---	---	---	---	---	3.
5/07 Permit Limits	Report	Report	Report	Report	Report	Report	Report	Report	Report	Report
Minimum	0	0	0	0	0	0	0	0	0	0
Maximum	0	0	0	0	0	0	0	0	0	0
Average	0	0	0	0	0	0	0	0	0	0
# of measurements	16	16	16	16	16	16	16	16	16	16

Note: --- = not detected above minimum level (ML), 10 µg/L and 2 µg/L for these PAHs and VOCs, respectively. The concentration for an individual compound is shown as the PQL if the PQL is above the ML. No PAHs or VOCs were detected above the PQLs for the time period shown.

Attachment 4: Summary of Sprague Quincy Terminal Product Storage Tanks

Bulk Petroleum Aboveground Storage Tanks

Tank Number	Product Type	Capacity (barrels, bbls)
1	Out of Service	5,000
2	Out of Service	5,000
3	Out of Service	5,000
4	JP-5	12,000
5	Diesel Fuel	12,000
6	JP-5	54,000
7	Kerosene	79,000
8	Diesel Fuel	94,000
9	No. 2 Fuel Oil	146,000
10	Ultra Low Sulfur Diesel	96,000
11	No. 6 Fuel Oil	83,000
12	No. 2 Fuel Oil	83,000

Total Capacity Available	674,000 bbls
Total Capacity In Use	659,000 bbls

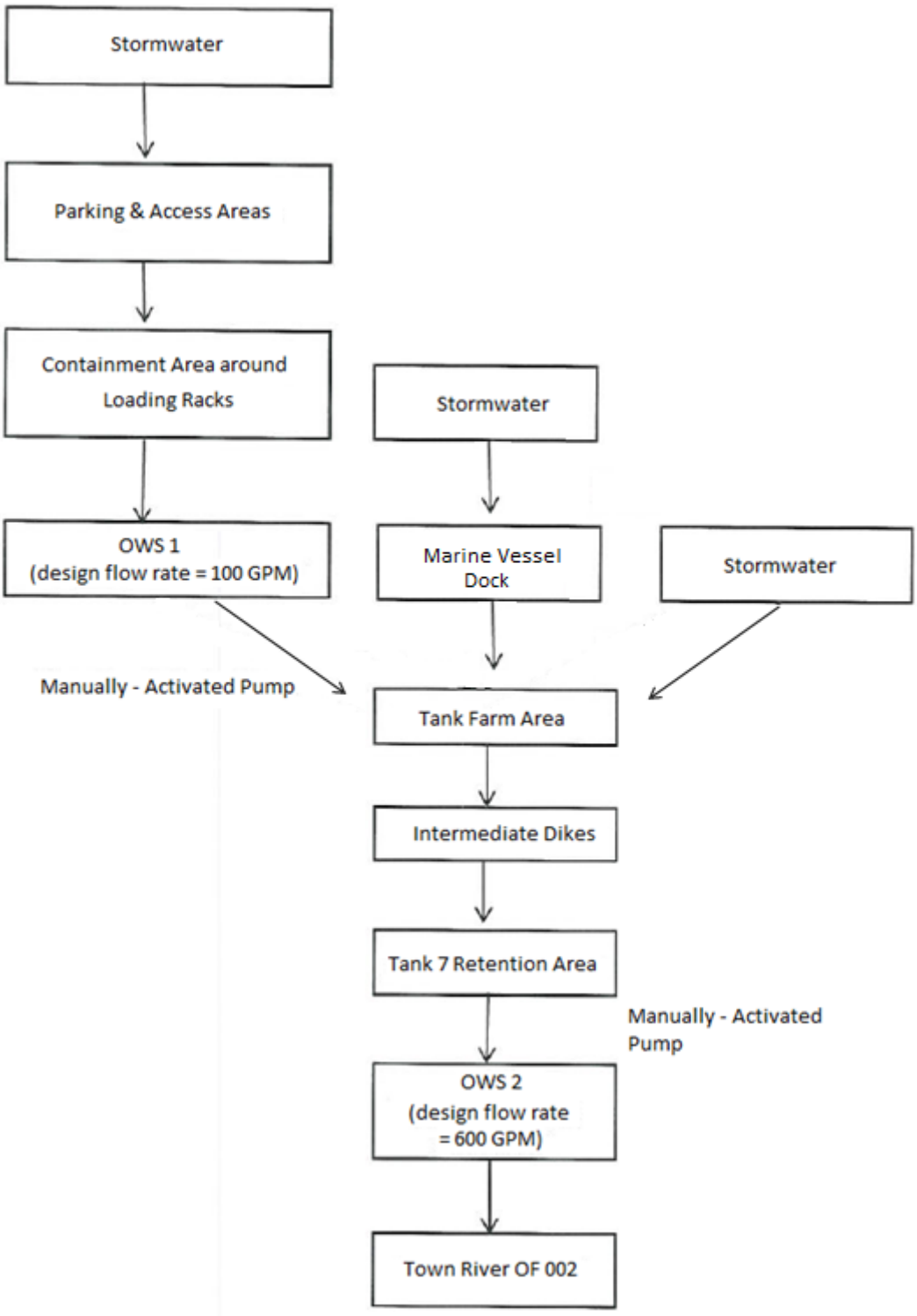
Aboveground Storage Tanks/Vessels

Tank Number	Product Type	Capacity (gallons, gal)
x-2	Diesel Additive	4,473
x-3	#2 Fuel Oil (Office)	275
x-4	Jet Additive	5,985
x-5	Red Dye Additive	1,000
x-6	Red Dye Additive	600
x-7	Heatforce Additive	500
x-8	Jet A Filter	100
x-9	Jet A Filter	500
x-10	Jet A Filter	200
x-11	#2 Fuel Oil (Boiler)	3,000
x-12	Lubricity Additive	2,000
x-13	#2 Fuel Oil (Boiler)	3,000

Total Capacity Available	21,633 gal

Note: 1 bbls = 42 gallons.

Attachment 5: Sprague Quincy Terminal Flow Diagram



Attachment 6: Summary of Essential Fish Habitat Designations

Name of Estuary/ Bay/ River: Boston Harbor, Massachusetts

10' x 10' Square Coordinates:

Boundary Coordinate	North	East	South	West
	42°20.0' N	70°50.0' W	42°10.0' N	71°00.0' W

Square Description:
Waters within the Atlantic Ocean within Massachusetts Bay and within Boston Harbor within the square affecting from north of Black Rock Beach in Cohasset, MA., to Long Island Bridge in Quincy, MA., and including off of Quincy, MA., Hull, MA. These waters also affect the following islands: Peddocks, Long, Gallops, Spectacle, Lovell, Georges, Hangman, Rainsford, southern Great Brewster, and the northwest tip of Thompson, along with Quincy Bay. Also affected include: Worlds End, Planters Hill, Bumkin I., Sheep I., Nantasket Beach, Strawberry Ledge, Harding Ledge, Thieves Ledge, Ultonia Ledge, Pt. Allerton, Spinnaker I., Grape I., Slate I., Hingham Harbor, Hingham MA., Black River, Weymouth, MA., N. Weymouth, MA., Weymouth Fore River, Quincy Pt., Town River Bay, Houghs Neck, and Moon Head.

Species	Eggs	Larvae	Juveniles	Adults	Spawning Adults
Atlantic salmon *(Salmo salar)*					
Atlantic cod *(Gadus morhua)*	S	S	M,S	M,S	S
haddock *(Melanogrammus aeglefinus)*	S	S			
pollock *(Pollachius virens)*	S	S	M,S		
whiting *(Merluccius bilinearis)*	S	S	M,S	M,S	
offshore hake *(Merluccius albidus)*					
red hake *(Urophycis chuss)*		S	S	S	
white hake *(Urophycis tenuis)*	S	S	S	S	
redfish *(Sebastes fasciatus)*	n/a				
witch flounder *(Glyptocephalus cynoglossus)*					
winter flounder *(Pleuronectes americanus)*	M,S	M,S	M,S	M,S	M,S
yellowtail flounder *(Pleuronectes ferruginea)*	S	S	S	S	S
windowpane flounder *(Scopthalmus aquosus)*	M,S	M,S	M,S	M,S	M,S
American plaice *(Hippoglossoides platessoides)*	S	S	S	S	S
ocean pout *(Macrozoarces americanus)*			S	S	
Atlantic halibut *(Hippoglossus hippoglossus)*	S	S	S	S	S
Atlantic sea scallop *(Placopecten magellanicus)*					
Atlantic sea herring *(Clupea harengus)*		S	M,S	M,S	

monkfish *(Lophius americanus)*					
bluefish *(Pomatomus saltatrix)*			M,S	M,S	
long finned squid *(Loligo pealei)*	n/a	n/a			
short finned squid *(Illex illecebrosus)*	n/a	n/a			
Atlantic butterfish *(Peprilus triacanthus)*	S	S			
Atlantic mackerel *(Scomber scombrus)*	M,S	M,S	M,S	M,S	
summer flounder *(Paralicthys dentatus)*					
scup *(Stenotomus chrysops)*					
black sea bass *(Centropristus striata)*					
surf clam *(Spisula solidissima)*	n/a	n/a			
ocean quahog *(Artica islandica)*	n/a	n/a			
spiny dogfish *(Squalus acanthias)*	n/a	n/a			
tilefish *(Lopholatilus chamaeleonticeps)*					

S = The EFH designation for this species includes the seawater salinity zone of this bay or estuary (salinity > 25.0 parts per thousand (ppt)).

M = The EFH designation for this species includes the mixing water / brackish salinity zone of this bay or estuary (0.5 < salinity < 25.0ppt).

F = The EFH designation for this species includes the tidal freshwater salinity zone of this bay or estuary (0.0 < salinity < 0.5ppt).

n/a = The species does not have this lifestage in its life history (dogfish/ redfish), or has no EFH designation for this lifestage (squids, surf clam, ocean quahog). With regard to the squids, the surf clam and the ocean quahog, juvenile corresponds with pre-recruits, and adult corresponds with recruits in these species' life histories.

Source: http://www.nero.noaa.gov/hcd/ma1.html

Corrections

Introduction

From January 11, 2013 to February 9, 2013, the United States Environmental Protection Agency ("EPA") and the Massachusetts Department of Environmental Protection (together, the "Agencies") solicited public comments on a draft NPDES permit, #MA0020869, developed pursuant to an individual permit application from Sprague Operating Resources LLC, for the re-issuance of a National Pollutant Discharge Elimination System ("NPDES") permit to discharge treated stormwater from the Sprague Quincy Terminal Outfall number 002 to the Town River Bay (Segment MA74-15) in Quincy, Massachusetts.

During the public comment period the Agencies received no formal comments. EPA did, however, note that the signatory for the EPA Office of Ecosystem Protection changed since the issuance of the Draft Permit. In addition, EPA noted a typographical error in the Fact Sheet accompanying the Draft Permit. The corrections required for these items are summarized below and are reflected in the Final Permit, where necessary.

Copies of the Final Permit may be obtained by writing or calling EPA's NPDES Industrial Permits Section (OEP 06-1), Office of Ecosystem Protection, 5 Post Office Square, Suite 100, Boston, MA 02109-3912; Telephone: (617) 918-1989.

Corrections

1. As of February 11, 2013, Ken Moraff is the Acting Director for EPA's Office of Ecosystem Protection. The signatory block on page 1 of 13 has been corrected to reflect this change.

2. The data included for Total Flow in Attachment 3 to the Draft Permit Fact Sheet was presented in inconsistent units. These data points have been corrected and are presented in million gallons per month (Mgal/mo) consistently in the attached table. In addition, Section 7.1 of the permit's Fact Sheet, which describes the flow values reported for the Facility from April 1, 2008 through April 30, 2012, should have stated, "the maximum monthly total flow reported was 2.376 million gallons per month (Mgal/mo) and the minimum flow reported was 0.012 Mgal/mo."

   Since Fact Sheets are final documents that accompany Draft NPDES Permits, they are not changed upon issuance of the Final Permit. EPA may acknowledge Fact Sheet errors or inconsistencies, and then provide the necessary rationale for changes that may be required in the Final NPDES Permit. Therefore, EPA notes the correction. In this case, no change to the NPDES Permit is necessary.

Attachment 3: Discharge Monitoring Data

SPRAGUE QUINCY TERMINAL - MA0020869
Outfall Serial Number 002
Monthly Reporting

Monitoring Period End Date	Flow		pH		TSS		Oil & Grease	Number of Events
	gal/min	Mgal/mo	SU	SU	Mg/L	Mg/L	Mg/L	#
	Rate	Total	Minimum	Maximum	Monthly Avg	Daily Max	Daily Max	Total
04/30/2008	600.	.108	7.1	7.1	---	---	---	2.
05/31/2008	600.	.012	7.4	7.4	6.	6.	---	1.
06/30/2008	600.	.018	7.4	7.4	---	---	---	1.
07/31/2008	600.	.423	7.4	7.4	6.8	6.8	---	5.
08/31/2008	600.	.18	7.1	7.1	---	---	---	1.
09/30/2008	600.	.522	7.1	7.1	---	---	---	4.
10/31/2008	600.	.108	7.9	7.9	22.	22.	---	1.
11/30/2008	600.	.468	9.6	9.6	4.4	4.4	---	5.
12/31/2008	600.	.864	9.5	9.5	---	---	---	6.
01/31/2009	Frozen Conditions							
02/28/2009	600.	.504	7.	7.	14.	14.	---	5.
03/31/2009	600.	.153	7.8	7.8	---	---	---	2.
04/30/2009	600.	.414	9.6	9.6	---	---	---	4.
05/31/2009	600.	.099	7.6	7.6	---	---	---	1.
06/30/2009	600.	.09	7.3	7.3	18.	18.	---	1.
07/31/2009	600.	.378	6.7	6.7	---	---	---	5.
08/31/2009	No Discharge							
09/30/2009	600.	.594	7.8	7.8	---	---	---	5.
10/31/2009	600.	.756	7.6	7.6	---	---	---	5.
11/30/2009	600.	.09576	7.6	7.6	---	---	---	1.
12/31/2009	600.	.639	7.	7.	---	---	---	6.
01/31/2010	600.	.09	6.9	6.9	---	---	---	1.
02/28/2010	600.	.396	7.2	7.2	33.	33.	---	2.
03/31/2010	600.	2.376	7.1	7.1	---	---	---	9.
04/30/2010	600.	.288	7.6	7.6	---	---	---	1.
05/31/2010	No Discharge							
06/30/2010	600.	.09	6.7	6.7	8.8	8.8	---	3.
07/31/2010	No Discharge							
08/31/2010	600.	.585	7.7	7.7	---	---	---	4.
09/30/2010	No Discharge							
10/31/2010	600.	.243	7.7	7.7	---	---	---	2.
11/30/2010	600.	.342	7.5	7.5	4.	4.	5.3	5.
12/31/2010	600.	.09	7.1	7.1	---	---	---	2.
01/31/2011	600.	.18	7.3	7.3	5.6	5.6	---	2.
02/28/2011	600.	.31788	6.7	6.7	4.8	4.8	---	6.
03/31/2011	600.	.441	6.8	6.8	4.8	4.8	---	6.
04/30/2011	600.	.324	6.7	6.7	4.4	4.4	---	3.

05/31/2011	600.	.234	7.5	7.5	---	---	---	2.
06/30/2011	600.	.252	7.9	7.9	---	---	---	2.
07/31/2011	600.	.288	7.4	7.4	10.	10.	---	2.
08/31/2011	600.	.378	7.1	7.1	---	---	---	7.
09/30/2011	600.	.495	7.2	7.2	---	---	---	3.
10/31/2011	600.	.81	6.9	6.9	---	---	---	7.
11/30/2011	600.	.612	7.2	7.2	---	---	---	6.
12/31/2011	600.	.522	6.6	6.6	---	---	---	4.
01/31/2012	600.	.18	7.3	7.3	---	---	---	3.
02/29/2012	600.	.05976	7.5	7.5	6.	6.	---	1.
03/31/2012	600.	.078	6.7	6.7	---	---	---	1.
04/30/2012	600.	.198	6.3	6.3	34.	34.	---	1.
2007 Permit Limits	600 gal/min	Report	6.5 SU	8.5 SU	30 mg/L	100 mg/L	15 mg/L	Report
Minimum	600.	.012	6.3	6.3	4.	4.	5.3	1.
Maximum	1000.	2.376	9.6	9.6	34.	34.	5.3	9.
Average	609.	0.3597	7.4	7.4	11.7	11.7	5.3	3.
Standard Deviation	60.	0.3827	0.7	0.7	10.	10.	Not Applicable	2.
# of measurements	44	44	44	44	44	44	44	44

Note: --- = not detected above practical quantitation limit (PQL).