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 Twin Rivers Technology (TRT) Terminal

is authorized to discharge from the facility located at

740 Washington Street
Quincy, MA 02169

to receiving water named

Town River Bay (MA74-15)

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

This permit shall become effective on the date of signature.

This permit supersedes the permit issued on March 28, 2005.

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 consists of 13 pages in Part I including effluent limitations and monitoring requirements, and 25 pages in Part II including General Conditions and Definitions.

Signed this 12th day of May, 2011

/S/SIGNATURE ON FILE

Stephen S. Perkins, 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 expiration the permittee is authorized to discharge treated stormwater runoff from **Outfall Serial Number 001** to Town River Bay. Such discharge shall: 1) be limited and monitored by the permittee as specified below; and 2) not cause a violation of the State Surface Water Quality Standards of the receiving water.

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements [1,2]	
		Average Monthly	Maximum Daily	Measurement Frequency [3]	Sample Type
Flow [4]	gpm	*****	200	Continuous	Meter
pH range [5, 10]	S.U.	6.5 - 8.5		Monthly	Grab
Total Suspended Solids (TSS) [6]	mg/L	30	100	Monthly	Grab
Oil and Grease [6, 7, 10]	mg/L	*****	15	Monthly	Grab
Polynuclear Aromatic Hydrocarbons (PAHs) [8]					
Benzo(a)anthracene	µg/L	*****	Report	Quarterly	Grab
Benzo(a)pyrene	µg/L	*****	Report	Quarterly	Grab
Benzo(b)fluoranthene	µg/L	*****	Report	Quarterly	Grab
Benzo(k)fluoranthene	µg/L	*****	Report	Quarterly	Grab
Chrysene	µg/L	*****	Report	Quarterly	Grab
Dibenzo(a,h)anthracene	µg/L	*****	Report	Quarterly	Grab
Indeno(1,2,3-cd)pyrene	µg/L	*****	Report	Quarterly	Grab
Napthalene	µg/L	*****	Report	Quarterly	Grab
Volatile Organic Compounds (VOCs) [9]					
Benzene	µg/L	*****	51	Quarterly	Grab
Toluene	µg/L	*****	Report	Quarterly	Grab
Ethylbenzene	µg/L	*****	Report	Quarterly	Grab
Total Xylenes	µg/L	*****	Report	Quarterly	Grab

Footnotes:

1. Samples taken in compliance with the monitoring requirements specified above shall be taken at a point representative of the discharge through the outfall, prior to mixing with the receiving waters. For Outfall Serial Number 001, samples shall be taken after treatment in the Oil/Water (O/W) Separator but before the effluent is discharged into and/or mixes with the Town River Bay. All samples shall be tested in accordance with the procedures in 40 CFR Part 136, unless specified elsewhere in the permit. Any change in sampling location must be reviewed and approved in writing by the Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP). The permittee shall submit the results to EPA of any additional testing, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR § 122.41(l)(4)(ii).

2. Samples must be taken only during a pumping event, which is defined as a time when the manually activated lift pump in the berm area of Tank #8 is being operated. A "no discharge" report shall be submitted for those sampling periods in which there is no discharge. When adverse climatic conditions preclude the ability to sample, the permittee shall submit a report citing the conditions which prevented sampling with that month's DMR. All records pertaining to sampling and all copies of DMRs shall be kept as part of the permittee's Stormwater Pollution Prevention Plan (SWPPP) developed pursuit to Part I.C of this permit.

3. Sampling frequency of 1/month is defined as the sampling of one (1) pumping event (as defined above in Footnote 2) in each calendar month. Sampling frequency of quarterly is defined as the sampling of one (1) pumping event (as defined above in Footnote 2) every three months. **Quarterly sampling shall be performed concurrently with the monthly monitoring event.**

4. For Flow Rate, the maximum daily value represents the estimated maximum instantaneous flow rate identified by the facility as passing through the O/W Separator for each day that stormwater is discharged during the reporting period. The permittee shall take steps to control the water flow rate through the O/W Separator so it does not exceed the maximum design flow rate of 200 GPM.

5. The pH of the effluent shall not be less than 6.5 standard units (SU), nor greater than 8.5 SU at any time, unless these values are exceeded due to natural causes. The pH shall be no more than 0.2 units outside the natural background range. To demonstrate that pH values of the effluent are outside the permitted pH range due to natural causes, the permittee must show that pH measurements of the source water and the effluent are the same. When the values are exceeded due to natural causes, documentation of such conditions must be submitted by the permittee with the monthly DMR and recorded in the SWPPP.

6. The permittee shall, at a minimum, remove sediment from the O/W Separator whenever it has accumulated to a depth of one (1) foot or otherwise diminishes the effectiveness of the system.

7. The permittee shall maintain and operate the O/W Separator in order to minimize the discharge of oil. Use EPA Method 1664A as defined at 40 CFR Part 136 for the determination of the conventional pollutant Oil and Grease.

8. Use the testing procedures outlined in 40 CFR Part 136. The quantitative methodology used for the PAH analysis shall be capable of achieving a detection limit of less than or equal to 10 ug/L.

9. Use the testing procedures outlined in 40 CFR Part 136.3 Table IC-List of Approved Test Procedures for Non-Pesticide Organic Compounds.

10. Required for State Certification.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

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

3. The discharge shall not cause objectionable discoloration to the receiving waters.

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

5. The effluent shall not contain materials in concentrations or in combinations which are hazardous or toxic to aquatic life or which would impair the uses designated by the classification of the receiving waters.

6. The discharges shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsuitable for the designated uses and characteristics ascribed to their use.

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

8. There shall be no discharge of tank-bottom water or bilge water alone or in combinations with stormwater discharge or other wastewater unless specifically approved by the U.S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection.

9. The permittee shall not add chemicals (e.g., disinfectant agents, detergents, emulsifiers, etc.) to the collection and treatment system without prior approval from EPA. Also, the permittee shall not add any bio-remedial agents including microbes to the collection and treatment system without prior acceptance of EPA.

10. The permittee shall not discharge any sludge and/or bottom deposits from storage tanks, basin and/or diked area to the receiving water. Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, stilling basins, the Oil/Water (O/W) Separator, observation basins with baffles, petroleum product storage tanks, baffle storage tanks collecting spills, and tank truck loading rack sumps.

11. Hydrostatic Test Water Discharges

    a. The hydrostatic test water shall be monitored as described below and treated through the O/W Separator prior to being discharged through Outfall 001 to Town River Bay. The permittee shall notify EPA and the State with any proposed hydrostatic-test water discharges.

        (1) The flow of hydrostatic test water into the O/W Separator shall be controlled to prevent it from exceeding the maximum design flow rate of the separator (i.e., 200 gpm).

(2) The permittee shall take a minimum of six (6) representative samples of the hydrostatic test water:

i. For New and Existing Tanks, the permittee shall take:
- two (2) grab samples of the influent (one (1) grab sample of the fill (source) water during the first 10% of the fill segment time and one (1) sample during the last 10% of the fill-segment time);
- two (2) grab samples of the tank water (one (1) at the top and one (1) at the bottom of the tank), following testing but before draining (in-process); and
- two (2) grab samples of the effluent (one (1) sample of the discharge water during the first 10% of discharge and one (1) sample during the last 10% of discharge).

ii. For New and Existing Pipelines, the permittee shall take:
- two (2) grab samples of the influent (one (1) grab sample of the fill (source) water during the first 10% of the fill segment time and one (1) sample during the last 10% of the fill-segment time);
- two (2) grab samples of the pipeline water following depressurization (in-process); and
- two (2) grab samples of the effluent (one (1) sample of the discharge water during the first 10% of discharge and one (1) sample during the last 10% of discharge).

The two (2) grab in-process samples shall be analyzed as noted below and results evaluated prior to discharge through the conveyance and discharge system. The hydrostatic test water shall only be discharged if such analysis of the in-process samples indicates that after appropriate management and treatment, all permit conditions shall be met. If at anytime the analysis demonstrates that the discharge water quality is not consistent with the effluent limits established in this permit, the permittee shall cease discharging the effluent until further treatment achieves the effluent limits.

These influent, in-process, and effluent samples shall each be analyzed for the parameters indicated below:
- Total Suspended Solids (TSS);
- Oil & Grease (O&G);
- pH;
- Chemical Oxygen Demand (COD);
- Dissolved Oxygen (DO);
- PAHs (listed in Part I.A.1 of this permit); and
- VOCs (Benzene, Toluene, Ethylbenzene, and Total Xylenes).

In addition, if potable water or a similar source of water which is likely to contain residual chlorine concentrations is used for hydrostatic testing, Total Residual Chlorine shall be tested.

(3) The hydrostatic test waters released from the tank(s) and/or pipelines and treated through the O/W Separator shall meet the effluent limitations of Part I.A.1 of this permit and also shall satisfy all conditions of this permit, including meeting all discharge limitations and detection limits.

(4) The surface of the O/W Separator shall be routinely observed during discharge of hydrostatic test waters. In the event that there is evidence of a release of hydrocarbons (i.e., visible oil sheen and/or noticeable increase in turbidity of discharge water), the permittee shall immediately halt the transfer of hydrostatic test water and take steps to correct the problem.

(5) The permittee shall submit a letter/report to EPA and the MassDEP, summarizing the results of the hydrostatic test **within 90 days of completion of the test**. This report shall contain:

i. the date(s) during which the hydrostatic testing occurred;
ii. the volume of hydrostatic test water discharged;
iii. a copy of the laboratory data sheets for each analysis, providing the test method, the detection limits for each analyte, and a brief discussion of whether all appropriate QA/QC procedures were met and were within acceptable limits; and
iv. a brief discussion of the overall test results and how they relate to the Effluent Limitations in this permit.

(6) The U.S. Environmental Protection Agency shall reserve the right to re-open the permit, in accordance with 40 CFR §122.62(a)(2), to examine hydrostatic test water discharges in the event that sampling results indicate that the standards for the assigned classification of the Town River Bay might not be attained using only an O/W Separator for treatment.

(7) Discharge of additives are prohibited, including but not limited to: Xylenes, Ethyl benzene; Glutaraldehyde; Ethylene Glycol, Butoxyethanol, Alkylacrelate nitrito styrene polymer, Coco alkylamine, 1,2,3 and 4-Trimethylbenzene,1,3,5-Trimethylbenzene and Methhyl Isobutyl Ketone.

12. The permittee shall notify the U.S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection in writing of any changes in the operations at the facility, including the use of chemical additives and changes which have the potential to cause the maximum design flow rate through the O/W Separator to be exceeded, that may have an effect on the permitted discharge of wastewater from the facility.

13. 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 basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:

(1) One hundred micrograms per liter (100 µg/l);

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

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R.§122.21(g)(7); or

(4) Any other notification level established by the Director in accordance with 40 C.F.R.§122.44(f).

b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 µg/l);

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

(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R.§122.21(g)(7);

(4) Any other notification level established by the Director in accordance with 40 C.F.R.§122.44(f).

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

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

1. The permittee is authorized 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, including oil and/or hazardous material from the transfer station (dock barge), contact or noncontact cooling water, or untreated contaminated

ground water, or stormwater not authorized by this permit shall be reported in accordance with Part II Standard Conditions Section D.1.e.(1) of this permit (Twenty-four hour reporting).

C. STORMWATER POLLUTION PREVENTION PLAN

1. The permittee shall develop, implement, and maintain a Stormwater Pollution Prevention Plan (SWPPP) designed to reduce, or prevent, the discharge of pollutants in stormwater 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).

2. The SWPPP shall be completed or updated and certified by the permittee **within 90 days after the effective date of this permit**. The permittee shall certify that its SWPPP has been completed or 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 one hundred and twenty (120) days of the effective date of this permit.**

3. 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 September 29, 2008, modified May 27, 2009), the general SWPPP provisions are included in Part 5. Specifically, the SWPPP shall document the selection, design, and installation of control measures and contain the elements listed below:

   a. A pollution prevention team with collective and individual responsibilities for developing, implementing, maintaining, revising and ensuring compliance with the SWPPP.
   b. 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 stormwater flows, and locations of all existing structural control measures, stormwater conveyances, pollutant sources (identified in Part 3.c. below), stormwater monitoring points, stormwater inlets and outlets, and industrial activities exposed to precipitation such as, storage, disposal, material handling.
   c. A summary of all pollutant sources which includes a list of activities exposed to stormwater, the pollutants associated with these activities, a description of where spills have occurred or could occur, a description of non-stormwater discharges, and a summary of any existing stormwater discharge sampling data.
   d. A description of all stormwater controls, both structural and non-structural.
   e. 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.

4. The SWPPP shall document the appropriate best management practices (BMPs) implemented or to be implemented at the facility to minimize the discharge of pollutants in stormwater 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 September 29, 2008, modified May 27, 2009), these control measures are described in Part 2.1.2. Specifically, BMPs must be selected and implemented to satisfy the following non-numeric technology-based effluent limitations:

    a. Minimizing exposure of manufacturing, processing, and material storage areas to stormwater discharges.
    b. Good housekeeping measures designed to maintain areas that are potential sources of pollutants.
    c. Preventative maintenance programs to avoid leaks, spills, and other releases of pollutants in stormwater discharged to receiving waters.
    d. Spill prevention and response procedures to ensure effective response to spills and leaks if or when they occur.
    e. 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.
    f. Runoff management practices to divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff.
    g. Proper handling procedures for salt or materials containing chlorides that are used for snow and ice control.

5. All areas with industrial materials or activities exposed to stormwater 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 stormwater pollution prevention team. Inspections shall begin during the 1st full 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 stormwater samples (from each outfall), which shall be collected only during pumping events, defined as a time when the manually activated lift pump in the berm area of Tank #8 is being operated, 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:

    a. The date and time of the inspection and at which any samples were collected;
    b. The name(s) and signature(s) of the inspector(s)/sample collector(s);
    c. Weather information and a description of any discharges occurring at the time of the inspection;
    d. Results of observations of stormwater discharges, including any observed discharges of pollutants and the probable sources of those pollutants;
    e. Any control measures needing maintenance, repairs or replacement; and,

f. Any additional control measures needed to comply with the permit requirements.

6. 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 stormwater discharges associated with industrial activity.

7. 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 numerical or non-numerical stormwater effluent limits with a date and description of the corrective actions taken.

D. REOPENER CLAUSES

1. This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
   a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
   b. Controls any pollutants not limited in the permit.

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 (OES04-4)
Boston, MA 02109-3912

And

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

c. Submittal of Reports in Hard Copy Form

Monitoring results shall be summarized for each calendar month and reported on separate hard copy Discharge Monitoring Report Form(s) (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 all reports or notifications required above shall be submitted to the State at the following addresses:

MassDEP – Northeast Region
Bureau of Waste Prevention (Industrial)
205B Lowell Street
Wilmington, MA 01887

And

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-New England and to MassDEP.

2. The permittee shall attach a copy of the laboratory case narrative to the respective DMR Form submitted to EPA and MassDEP for each sampling event reported. The laboratory case narrative shall include a copy of the laboratory data sheets for each analysis, providing the test method, the detection limits for each analyte, and a brief discussion of whether all appropriate Quality Assurance/Quality Control (QA/QC) procedures were met and were within acceptable limits.

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 MassDEP pursuant to the Massachusetts Clean Waters Act, MGL c. 21, §§ 26-53, and 314 CMR 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 CFR 124.53, MGL c. 21, § 27 and 314 CMR 3.07. All of the requirements (if any) contained in MassDEP's water quality

certification for the permit are hereby incorporated by reference into this state surface water discharge permit as special conditions pursuant to 314 CMR 3.11.

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
FIVE POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

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: **MA0028037**

NAME AND MAILING ADDRESS OF APPLICANT:

Sprague Energy
Two International Drive, Suite 200
Portsmouth, NH 03801-6809

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Sprague Twin Rivers Technology (TRT) Terminal
740 Washington Street
Quincy, MA 02169

RECEIVING WATER(S): **Town River Bay (MA74-15)**

RECEIVING WATER CLASSIFICATION(S): **Class SB (shellfishing)**

SIC CODE: **5171 (Bulk Petroleum Storage)**

Table of Contents

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

The above applicant has applied to the U.S. Environmental Protection Agency (EPA) for re-issuance of a National Pollutant Discharge Elimination System (NPDES) permit to discharge treated stormwater into the designated receiving waters (Town River Bay). The Current Permit ("2005 Permit") was issued on March 28, 2005, and expired five years from the effective date (March 28, 2010). EPA received a completed permit renewal application from Sprague dated November 20, 2009, and received additional requested information on January 21, 2010. Since the permit renewal application was deemed timely and complete by EPA, the permit has been administratively continued.

Sprague Twin Rivers Technology (TRT) Terminal ("the Facility") is a bulk petroleum facility located in Quincy, Massachusetts with operations consisting of the receipt, storage, and distribution of petroleum products. The facility is located to the north of Route 3A, west of the Weymouth Fore River and to the south/southeast of Town River Bay. It consists of three (3) principal areas: a tank farm, a terminal yard/truck loading rack, and a vessel dock (which it shares with the adjacent Twin Rivers Technologies (TRT) Facility permitted under NPDES permit number MA0004073). The total area of the Sprague facility is approximately ten (10) acres. The facility discharges stormwater runoff from parking and access areas, containment areas around the loading racks, and containment areas around the tanks, through a treatment system that consists of an oil/water (O/W) separator, via one outfall (Outfall 001) to Town River Bay.

Attachment A includes the Site Locus map and Attachment B includes the Site Plan, which shows the layout of the facility, locations of containment berms, drainage pathways, locations of pumps, location of the O/W Separator, and the outfall location.

2. Description of Discharge

2.1 Stormwater

The Facility discharges stormwater, as defined in 40 CFR 122.26(b)(13) to mean stormwater runoff, snow melt runoff and surface runoff and drainage, which may contain a wide range of contaminants. The concentrations of such contaminants are generally site specific and therefore may vary greatly from site to site. Based on the activities and operations at the Facility, for this Draft Permit, the pollutants of concern include total suspended solids, oil and grease, polynuclear aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs).

A summary of the discharge, based on discharge monitoring data from June 1, 2005 through March 31, 2010 for Outfall 001, is presented in Attachment C. These data were collected under the terms of the 2005 permit.

2.2 Hydrostatic Test Water

Repairs sometimes (although rarely) are made at the facility to tanks and piping used for the storage and conveyance of the products. After completing certain maintenance work, the vessels and/or pipe networks may be hydrostatically tested for leaks. Hydrostatic testing involves filling the vessel or pipe with water under pressure and monitoring pressure drops over time. If the system maintains a constant pressure, there are no leaks. River water or potable

water may be used as a source of hydrostatic test water. Thus, hydrostatic test water discharge may contain minimal amounts of foreign matter, trace amounts of hydrocarbons, background material found in the river or residual chlorine. According to the facility employees, no hydrostatic testing has been completed since 1997, and therefore no hydrostatic test water has been discharged recently. However, in the event the Facility conducts hydrostatic testing, Part I.A.11 of the Draft Permit authorizes the discharge of hydrostatic test water as further described in Section 7 of this Fact Sheet.

3. Receiving Water Description

The Facility discharges through Outfall 001 (location indicated on Attachment B) to Town River Bay (Massachusetts waterbody segment ID MA74-15), which is part of the Boston Harbor Watershed and the Weymouth and Weir River sub-watersheds. Town River Bay is a 0.47 square mile waterbody that begins at the Route 3A bridge in Quincy and extends to the mouth located between Shipyard and Germantown Points in Quincy, where it joins the Weymouth Fore River. The Weymouth Fore River flows into Hingham Bay, which is part of the Boston Harbor Watershed.[1]

Town River Bay is classified as Class SB and designated for shellfishing[2], by the Massachusetts Department of Environmental Protection (MassDEP) under the Commonwealth of Massachusetts Water Quality Standards[3]. Class SB waters are described in the Commonwealth of Massachusetts Water Quality Standards (314 CMR 4.05(4)(b)) as "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."

According to the Division of Marine Fisheries, as of July 2009, the designated shellfish growing areas status in Town River Bay was as follows: approximately 0.4 square miles is prohibited and approximately 0.15 square miles is conditionally restricted.[1,4]

Section 303 (d) of the CWA requires states to identify those water bodies that are not expected to meet water quality standards after the implementation of technology based controls and, as such require the development of total maximum daily loads (TMDL). Town River Bay is listed on the *Final Massachusetts Year 2008 Integrated List of Waters*[5] as a Category 5 waterbody: "Waters requiring a TMDL". The bay is not attaining water quality standards due to organic enrichment/low DO and pathogens.

MassDEP is required under the CWA to develop a Total Maximum Daily Load (TMDL) for a waterbody once it is identified as impaired. A TMDL is essentially a pollution budget designed to

[1] Boston Harbor 1999 Water Quality Assessment Report, http://www.mass.gov/dep/water/resources/70wqar3c.pdf
[2] http://www.mass.gov/dep/water/laws/tblfig.pdf
[3] http://www.mass.gov/dep/service/regulations/314cmr04.pdf
[4] http://www.mass.gov/dfwele/dmf/programsandprojects/shellfish/gbh/gbh1.pdf
[5] http://www.mass.gov/dep/water/resources/08list2.pdf

restore the health of a water body. A TMDL first identifies the source(s) of the pollutant from direct and indirect discharges in order to next determine the maximum amount of pollutant (including a margin of safety) that can be discharged to a specific water body while maintaining water quality standards for designated uses. It then outlines a plan to meet the goal.

The *Draft Pathogen TMDL for the Boston Harbor Watershed* has been developed.[6] Because this TMDL is not yet final, EPA is developing the conditions for this permit based on a combination of water quality standards and Best Professional Judgment (BPJ). Upon finalization of the TMDL, the permit may be re-opened to include additional monitoring requirements to be consistent with the Waste Load Allocation and/or the Load Allocation.

Based on the nature of the operations and products stored at the Facility, stormwater discharges are not expected to contribute to the organic enrichment/low DO and pathogen impairments.

4. Limitations and Conditions

The effluent limitations and monitoring requirements may be found in the draft NPDES permit.

5. Permit Basis: Statutory and Regulatory Authority

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. This Draft NPDES permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and applicable State regulations. During development, EPA considered the most recent technology-based treatment requirements, water quality-based requirements, and all limitations and requirements in the current/existing permit. The regulations governing the EPA NPDES permit program are generally found at 40 CFR Parts 122, 124, 125, and 136. The general conditions of the Draft Permit are based on 40 CFR §122.41 and consist primarily of management requirements common to all permits. The effluent monitoring requirements have been established to yield data representative of the discharge under authority of Section 308(a) of the CWA in accordance with 40 CFR §122.41(j), §122.44(i) and §122.48.

5.1 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,

[6] http://www.mass.gov/dep/water/resources/bharbor1.pdf

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)]. Compliance schedules and deadlines not in accordance with the statutory provisions of the CWA can not be authorized by a NPDES permit.

Stormwater discharges from activities associated with petroleum bulk stations and terminals must satisfy best conventional technology (BCT) and best available technology (BAT) requirements and must comply with more stringent water quality standards if BCT and BAT requirements are not adequate. On September 25, 1992, EPA established through its General Permit for Stormwater Discharge Associated with Industrial Activity, that the minimum BAT/BCT requirement for stormwater discharges associated with industrial activity is a Stormwater Pollution Prevention Plan (SWPPP) [57 FR 44438].

EPA has not promulgated technology-based National Effluent Guidelines for stormwater discharges from petroleum bulk stations and terminals (Standard Industrial Code 5171). 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 authority for BPJ is contained in Section 402(a)(1) of the CWA, which authorizes the EPA Administrator to issue a permit containing "such conditions as the Administrator determines are necessary to carry out the provisions of the Act." 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.

5.2 Water Quality-Based Requirements

Water quality-based criteria are required in NPDES permits when EPA and the State determine that effluent limits more stringent than technology-based limits are necessary to maintain or achieve state or federal water-quality standards (See Section 301(b) (1)(C) of the CWA). Water quality-based criteria consist of three (3) 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) of the water body; and 3) anti-degradation requirements to ensure that once a use is attained it will not be degraded. The Massachusetts State Water Quality Standards, found at 314 CMR 4.00, include these elements. The State Water Quality Regulations limit or prohibit discharges of pollutants to surface waters and thereby assure that the surface water quality standards of the receiving water are protected, maintained, and/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, be used unless site-specific criteria are established. EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 CFR §122.44(d).

Section 101(a)(3) of the CWA specifically prohibits the discharge of toxic pollutants in toxic amounts. The Commonwealth of Massachusetts has a similar narrative criteria in their water quality regulations that prohibits such discharges [See Massachusetts 314 CMR 4.05(5)(e)]. The effluent limits established in the Draft Permit assure that the surface water quality standards of the receiving water are protected, maintained, and/or attained.

5.3 Anti-Backsliding

EPA's anti-backsliding provision as identified in Section 402(o) of the Clean Water Act and at 40 CFR §122.44(l) prohibits the relaxation of permit limits, standards, and conditions unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued. Anti-backsliding provisions apply to effluent limits based on technology, water quality, BPJ and State Certification requirements. Relief from antibacksliding provisions can only be granted under one of the defined exceptions [See 40 CFR §122.44(l)(i)]. Since none of these exceptions apply to this facility, the effluent limits in the Draft Permit are as stringent as those in the 2005 Permit.

5.4 Anti-Degradation

The Massachusetts Anti-Degradation Policy is found at Title 314 CMR 4.04. All existing uses of Town River Bay must be protected. The EPA anticipates that the MassDEP shall make a determination that there shall be no significant adverse impacts to the receiving waters and no loss of existing uses as a result of the discharge authorized by this permit. This Draft Permit is being reissued with allowable effluent limits as stringent as or more stringent than the 2005 Permit and accordingly will continue to protect the existing uses of the Town River Bay. The State is also asked to certify the anti-degradation provisions in State law are met.

6. Explanation of the Permit's Effluent Limitation(s)

6.1 Facility Information

Sprague's Terminal is a bulk petroleum facility located in Quincy, Massachusetts, with operations consisting of receipt, storage, and distribution of vegetable oil (coconut fatty acid, coconut oil), distillates (No. 2 fuel oil, and ultra low sulfur diesel fuel), glycerin, tallow, caustic soda, and red dye. These products are stored in ten (10) large, above ground storage tanks (ranging from 1.2 to 4.2 million gallons) and two above ground small tanks (approximately 1,000 and 12,000 gallons). Of the ten (10) tanks, six (6) (Tank numbers 1, 2, 8, 9, 10, and 11, containing coconut fatty acid, coconut oil, tallow, and glycerin) are leased by the adjacent Twin Rivers Technology (TRT) facility. The table included on the Site Plan in Attachment B shows the tank number, product stored, tank type, and maximum tank capacity. Tank number 9 formerly stored palm oil, but according to the facility, now stores glycerin.

The terminal is located north of Route 3A, on the west side of the Weymouth Fore River and the south/southeast side of the Town River Bay. The terminal consists of three (3) areas: a tank farm, a truck loading rack, and a vessel dock (which it shares with the adjacent Twin Rivers Technologies (TRT) Facility permitted under NPDES permit number MA0004073). The total area of the terminal is approximately ten (10) acres of land.

Products are received at the vessel dock by sea, and are distributed: 1) on-site via pipeline to storage tanks; 2) off-site by pipeline (to the neighboring TRT facility); and 3) off-site by tanker truck. Most of the bulk storage tanks and the marine vessel dock are interconnected by an extensive above and underground pipe network. There is also a place for tanker trunks to pump back unused product (south-east of Tank #9). A catch basin in this area diverts any water or spills to the containment area around tank 9.

The roof over the loading rack does not fully cover the loading rack area, and therefore some

stormwater enters the containment area. Stormwater from the containment area around the loading racks flows, via three catch basins, into a 10,000 gallon underground retention tank. A manually activated pump, which pumps water from the bottom of the tank, is used to pump water out of the tank and discharge it to the containment area around Tank #9. Prior to pumping the tank, a facility staff member checks the level of the water (and oil, if any) using a stick. When necessary, the facility hires a vacuum truck to skim oil off the surface of the tank and haul the volume skimmed off the site.

Stormwater from the parking and access areas drains to catch basins, which discharge to the containment area surrounding Tank #9.

The entire tank area of the facility is enclosed by a primary concrete and earthen containment berm, and each tank is located within a secondary earthen containment berm.

As indicated on the figure included in Attachment B, stormwater falling into intermediate berm areas of tanks #2, #6, #9, and #11, as well as that from the truck/driveway area, is pumped (via 200 gpd manually activated lift pumps) to the intermediate berm area of tank #8 via a series of catch basins, drainage swales, and piping. Stormwater falling into other berm (tanks #1, #3, #4, #5, and #10) areas is conveyed, via gravity, into the above-listed berm areas via drainage swales and sluice valves, which reportedly are commonly left in the open position. Dikes for intermediate containment areas are equipped with valved drainage consisting of manual gate valves which are kept locked in the closed position, except during drainage events. Previously, the permittee had stated that the storm water falling into berm area of tank #3 is entirely contained within that area, and is allowed to infiltrate into the ground. However, the Facility employees revised this statement during development of the Draft Permit. According to the Facility employees, stormwater in the berm area of tank #3 is conveyed by gravity to the area around tank #9.

The intermediate berm area of Tank #8 serves as a temporary storage facility for almost all stormwater from the facility. Stormwater contained in the berm area of tank #8 is collected in a catch basin/wet well and pumped to the O/W Separator via a manually operated lift pump.

According to the facility employees, the pump is only activated when: (1) there are no petroleum products observed in the water (e.g. no visible oil sheen) prior to pumping, and (2) when the volume of storm water is sufficient to reduce the available containment volume of the berm (reportedly at approximately one foot of the water depth). If petroleum products are observed in the storm water, the Terminal Supervisor is responsible for employing appropriate clean-up methods (e.g. deploying absorbent materials and /or pump-out and disposal via a licensed contractor) prior to pumping.

An in-line flow meter was installed on the 4-inch line after the final 200 gpm lift pump, prior to discharge to the O/W Separator. This meter measures total flow (gallons). The operators of the facility record the flow meter output prior to manually activating the pump, and read it after pumping is complete.

The flow rate of stormwater entering the O/W Separator is controlled by the pump capacity of the sump pump located in the intermediate berm area of tank #8. The flow rate of both the pump and the O/W Separator are reportedly 200 gallons per minute (gpm). The O/W Separator consists of a bar rack, settling area, an oil sorbent boom, a manually operated skimmer, a weir, and an area that

allows gravity flow of effluent to Outfall 001. According to the facility staff, the oil sorbent boom is replaced approximately once per year, in the spring. A shutoff valve directly follows the O/W Separator. In the event that any product or oil made it past the visual inspections prior to manual pumping or through the O/W Separator, this valve can be closed as a last resort prior to discharge from the outfall.

Oil can be removed from the water surface of the O/W Separator via an 8-inch diameter manually operated drum skimmer. The skimmed effluent is collected in a small (2.5' x 4' x 4.5') chamber adjacent to the main O/W Separator; the skimmed effluent can be pumped via a manually operated electric sump pump to the inlet of the main O/W Separator. The drum skimmer is rarely, if ever, used, as oil has not been observed in the O/W Separator in recent years. According to facility staff, if oil were to be observed in the O/W Separator, a vacuum truck would be hired to pump out the system, instead of using the drum skimmer.

The effluent sample is collected after the manually operated skimmer, prior to the weir, through a small access hatch in the grate. According to the facility staff, samples are only collected when the 200 gpm lift pump is running.

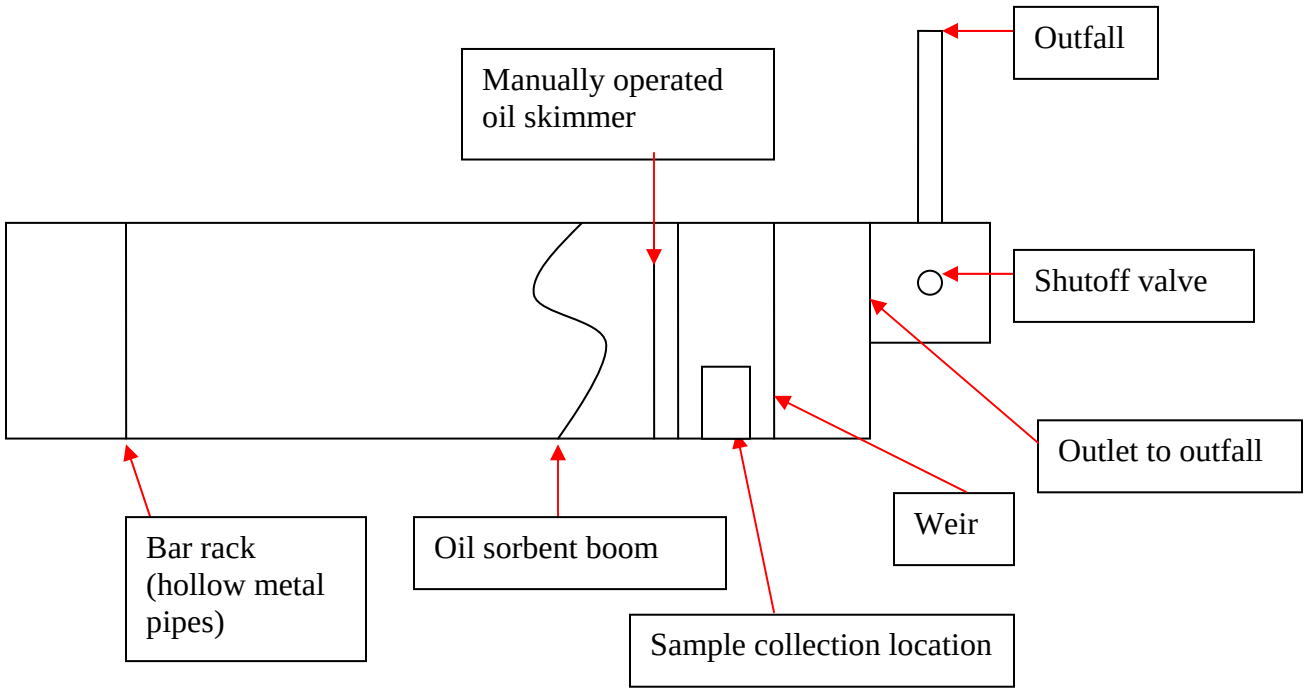


Figure 1: O/W Separator Diagram

There is one outfall (Outfall 001) from which the facility discharges, which follows the O/W Separator and the shutoff valve. Outfall Serial Number 001 is located at the northern corner of the elbow of the site, as shown on the figure included in Attachment B. Effluent from the O/W Separator is discharged to the Town River Bay via a six (6) inch diameter gravity line. The outfall is fitted with a check valve to prevent backflow from Town River Bay from occurring during extreme high-tide or weather events.

6.2 Derivation of Effluent Limits under the Federal CWA and/or the Commonwealth of Massachusetts' Water Quality Standards

The Draft Permit authorizes the discharge of treated stormwater, subject to effluent limitations which are within applicable water quality standards, and requires development and implementation of a stormwater pollution prevention plan (SWPPP) for additional protection of the environment. The effluent parameters in the Draft Permit are discussed in more detail below. The sections are divided according to the effluent characteristic being regulated. A brief analysis (summary) and discharge monitoring report (DMR) data from June 1, 2005 through March 31, 2010 are included in Attachment C.

6.2.1 Flow

The 2005 Permit requires average monthly and daily maximum flow to be reported in accordance with 40 CFR § 122.44 (i) (1(ii)). The 2005 Permit also required the permittee to install an electrically operated inline flow meter after the manually activated lift pump in the berm area surrounding Tank #8.

Part I.A.1 of the Draft Permit includes a new daily maximum effluent limitation of 200 gallons per minute (gpm) for flow, which, according to Sprague Energy, is the maximum design flow rate of the O/W Separator. This limit was added to ensure that the flow through the O/W Separator be maintained at or below the maximum design flow rate, in order to promote proper operation of the installed O/W Separator such that the oil and/or particulate phases are not entrained to the waterway. As shown in Attachment C, since June 1, 2005, the Facility has discharged a total flow ranging from 0 gallons a month to approximately 2 million gallons a month, averaging around 384,000 gallons a month. Between October 1, 2009 and March 31, 2010, daily maximum flow ranged from approximately 95,000 gallons per day to 180,000 gallons per day.

Part I.A.12 of the Draft Permit requires that the facility provide written notification to EPA and MassDEP of any changes in the operations at the facility that may have an effect on the permitted discharge of wastewater from the facility, including changes which have the potential to cause the maximum design flow rate through the O/W Separator to be exceeded.

6.2.2 Total Suspended Solids (TSS)

This Draft Permit proposes to continue the 2005 Permit's requirement of average monthly and maximum daily TSS effluent limits of 30 mg/L and 100 mg/L, respectively, and the monthly monitoring frequency.

The TSS limits in the Draft Permit are based upon the limits established in the existing permit in accordance with the anti-backsliding requirements found in 40 CFR §122.44(l). Heavy metals and polynuclear aromatic hydrocarbons 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 limits in the existing permit were developed based upon a BPJ determination. In drafting the stormwater discharge permits for the bulk storage terminals in Region 1, EPA made a BPJ determination that the technology guidelines promulgated at 40 CFR Part 423 for the Steam Electric Power Point Source Category, for point source discharges of low volume wastewater, were

appropriate to control the discharge of sediment particles and oils from bulk storage petroleum terminals in the region. Like oil terminals, electric generating facilities frequently have bulk storage of petroleum products, and therefore these limits are typical for discharges of stormwater from oil terminals.

In developing effluent limits for the Steam Electric 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. EPA then considered the level of treatment that could be technologically achieved for TSS using an O/W Separator and set corresponding limits in the guidelines (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 using the same TSS limits for the maximum daily limit for the O/W Separator at the facility, based on BPJ.

As shown in Appendix C, there were no exceedances of TSS between May 31, 2005 and March 31, 2010. During this time, both daily maximum and monthly average TSS values averaged around 5 mg/L, with a maximum reported concentration of 17 mg/L. The majority of TSS results were not detected above the laboratory detection limit (typically 4 mg/L).

6.2.3 Oil & Grease

The Draft Permit proposes to continue the existing limit for Oil and Grease (O&G) of 15 mg/L for the maximum daily value and proposes to continue the monthly monitoring frequency.

Originally this effluent limit was established by EPA-Headquarters as guidance to, and as a means of establishing a categorization within, the petroleum marketing terminals and oil production-facilities categories. However, performance data from terminals in Massachusetts continue to support that this effluent limit can be achieved through the proper operation of a correctly-sized O/W Separator and properly implemented best management practices. Similar facilities that generate similar pollutants, discharge to the same waterbody, and use an O/W Separator to process the water are limited to 15 mg/l for O&G. Furthermore, the Petroleum Refining Point Source Category standard (40 C.F.R. Part 419) does not require treatment of the wastewater if it does not exceed 15 mg/l of Oil & Grease. Finally, the Stormwater Multi-Sector General Permit sets 15 mg/l of Oil and Grease as a benchmark. Benchmark levels are considered to have little potential to negatively impact water quality standards. This Draft Permit continues to limit O&G at 15 mg/l based on a technology-based limit determined by BPJ.

The technology-based effluent limit of 15 mg/l has also been determined to meet the water quality standard established for Oil and Grease by Massachusetts Surface Water Quality Standards at 314 CMR § 4.05(4)(b)7. These standards state that Class SB "…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." An effluent concentration of 15 mg/l is recognized as the concentration at which many oils produce a visible sheen and/or cause undesirable taste in edible fish.

As shown in Appendix C, there were no exceedances of O&G between May 31, 2005 and March 31, 2010. During this time, O&G averaged around 6 mg/L, with a maximum reported concentration of

10 mg/L. Since early 2008, O&G has not been present above the laboratory method detection limits. Twenty-three of the O&M concentrations reported were not detected above the laboratory detection limit (typically 5 mg/L).

6.2.4 pH

The Massachusetts Surface Water Quality Standards require that pH in a Class SB water "shall be in the range of 6.5 through 8.5 standard units but not more than 0.2 units outside of the natural background range" (314 CMR 4.05(4)(b)3). To address the Standards, the 2005 permit added a limit range for pH. In order to continue to address the Standards and to comply with antibacksliding provisions (40 CFR §122.44(l)(1)), EPA is not proposing any change to this limit in this round of permitting.

A summary of the discharge monitoring data submitted by the facility during the time period of June 1, 2005 to March 31, 2010 is included as Attachment C to this Fact Sheet. The pH of the discharge has ranged from 5.1 to 8.1, averaging around seven (7). Two violations of the lower pH limit were noted in November 2006 and September 2007 (6.1 and 5.1, respectively), which could be attributed to the acidity in rain water. According to Facility employees, there were no known issues or atypical operating conditions at the facility on the dates of the lower pH limit violations.

6.2.5 Polynuclear Aromatic Hydrocarbons (PAHs)

Polynuclear Aromatic Hydrocarbons (PAHs) are a group of organic compounds which are found throughout the environment. PAHs are primarily introduced into the environment through the incomplete combustion of organic compounds. PAHs are also present in crude oil and some of the heavier petroleum derivatives and residuals (e.g., No. 2 Fuel Oil and asphalt). Spillage or discharge of these products can serve to introduce PAHs into the environment. PAHs will strongly adsorb to suspended particulates and biota and can also bio-accumulate in fish and shellfish.

The 1998 permit added requirements for quarterly monitoring of the following PAHs without limits, and the 2005 Permit continued this requirement:

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

There are sixteen (16) PAH compounds identified as priority pollutants under the CWA (See Appendix A to 40 CFR Part 423). Group I PAHs are seven well 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 the nine priority pollutant PAHs 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. Typically, exposure would be to a mixture of PAHs rather than to an individual PAH.

The permit application submitted by the permittee indicates that, based on five (5) samples, each of the seven (7) Group I PAH compounds were not detected above the laboratory detection limit (ranging from 10 ug/L to 11 ug/L). In addition, EPA has reviewed the discharge monitoring data for PAHs submitted by the facility since the issuance of the 2005 Permit (see Attachment C). The seven (7) Group 1 PAHs compounds were not detected above the laboratory detection limits (ranging from 10 to 15 ug/L, with an average of 11 ug/L), during the quarterly sampling events which occurred since May 1, 2006.

In addition, as stated in the response to comments for the 2005 Permit, "EPA has reviewed the discharge monitoring data for PAHs submitted by Sprague Energy since the issuance of the May 4, 1998 permit. The data collected for the Sprague Energy facility includes over 20 individual sampling events. The Seven (7) PAHs analyzed for were not detected above their respective reporting limits during any of the quarterly sampling events which occurred since 1998. The Minimum Level (ML) of reporting limits for each of the seven PAH compounds ranged from 5-10 ug/L (or 5-10 parts per billion). It should be noted that a similar trend (of not detecting any PAH compounds) was also noted for a number of other petroleum bulk stations and terminals located along Boston Harbor (i.e., the facilities located along Chelsea Creek)."

Based on EPA's review of the data from this facility as well as other similar bulk storage facilities discharging to the same receiving waterbody, EPA has concluded that permit limits for PAH compounds at Outfall 001 are not required at this time. However, given the potential health concerns related to PAHs, the type of petroleum products stored at the facility, and the historical levels of PAHs which have been documented in the sediment of Boston Harbor, the Draft Permit proposes to continue the previous report-only requirements for Group I PAHs without a limit, pending future monitoring which quantifies the concentration of these pollutants. Depending on the quantities of these pollutants in the discharge, EPA may reopen the permit to include effluent limitations.

In addition, the Draft Permit proposes that for future sampling the quantitative methodology used for the PAH analysis must be capable of achieving a detection limit of less than or equal to 10 ug/L.

Based on review of permits for similar facilities discharging into the same receiving water body, EPA has added naphthalene to the list of PAH compounds to be reported without limits by the facility in the Draft Permit. Naphthalene is considered an important limiting pollutant parameter based upon the prevalence of this compound in petroleum products and its toxicity (i.e., naphthalene has been identified as a possible human carcinogen).

6.2.6 VOCs (Benzene, Toluene, Ethylbenzene, and Total Xylenes)

Refined petroleum products contain numerous types of hydrocarbons. Individual components partition to environmental media on the basis of their physical/chemical properties (e.g., solubility, vapor pressure). Rather than attempt to establish effluent limits for every compound found in a petroleum release, limits are typically established for the compounds that would be the most difficult to remove as well as 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 benzene, toluene, ethylbenzene, and the three xylene compounds (BTEX) are normally found at relatively high concentrations in gasoline and the light distillates (e.g., diesel fuel) and then at decreasing concentrations in the heavier grades of petroleum distillate products

(e.g., fuel oils). Since many petroleum spills involve gasoline or other light distillates, a traditional approach for such spills has been to limit the aggregate parameter of BTEX compounds. This approach partially stems from the availability of 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 other light distillates.

Of these four compounds, benzene has one of the highest solubilities, it 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. The concentration in diesel fuel, although several orders of magnitude smaller than that found in gasoline, is still significant from an environmental perspective. The average percent by weight of benzene in diesel fuel is approximately 0.03 percent which is equivalent to a concentration of benzene of approximately 300 parts per million. This value is well above the recommended Federal Water Quality Criteria of 0.051 parts per million (or 51 parts per billion) for benzene.

Because of the reasons mentioned above, benzene can be considered one of the most important limiting pollutant parameters found in gasoline or other light distillates. Building on this premise, benzene can be used as an indicator-parameter for regulatory as well as characterization purposes of stormwater which comes in contact with light distillate products. The primary advantage of using an indicator-parameter is that it can streamline monitoring efforts while simultaneously maintaining an effective level of environmental protection.

The 2005 permit added a quarterly monitoring requirement for benzene with a maximum daily effluent limit of 51 ug/L. As stated in the October 2004 fact sheet, this limit was included "to better regulate the "potential" of diesel fuel coming in contact with stormwater via ancillary operations at this facility (i.e., such as product spills during loading and unloading operations). In establishing the effluent limit for VOC in the Draft Permit, EPA reviewed all appropriate criteria including the most recent Federal Water Quality Criteria (2002). The maximum daily effluent limit for benzene of 51 ug/L in the Draft Permit represents the current Federal Water Quality Criteria for benzene adopted by the Commonwealth of Massachusetts (See 314 CMR 4.05(5)(e)). The benzene limit of 51 ug/L is based on the human health criteria associated with the consumption of aquatic organisms (See *EPA National Recommended Water Quality Criteria: 2002*[7]). " This Draft Permit continues this previous effluent limit and monitoring schedule for benzene.

As shown in Attachment C, benzene has not been detected above the laboratory detection limits (1 ug/L) during the quarterly sampling events which occurred since May 1, 2006. Based on review of laboratory data from the Facility from sampling conducted in October 2009, November 2009, December 2009, and February 2010, toluene, ethylbenzene, and total xylenes have also not been detected above the laboratory detection limit (1 ug/L).

Based on review of the most recent recommended Federal Water Quality Criteria and the quarterly monitoring results for BTEX obtained from the discharges of similar facilities, the Draft Permit proposes to also include quarterly monitoring of toluene, ethylbenzene, and total xylenes, with report-only requirements. This additional monitoring for BTEX is necessary for the protection of human health and to maintain the water quality standards established under Section 303 of the

7 http://www.epa.gov/waterscience/criteria/wqctable/index.html

CWA.
Another potential VOC contaminant of concern found in gasoline is methyl tertiary-butyl ether (MTBE). MTBE is a synthetic compound used as a blending component in gasolines (e.g., oxygenated fuels, reformulated gasolines, and conventional gasolines). Due to its small molecular size and solubility in water, MTBE moves rapidly in groundwater. As a result this compound has been identified in a number of public and private wells throughout the United States. The Draft Permit does not include monitoring for methyl tertiary-butyl ether (MTBE) because gasoline is not one of the products stored at the Facility.

6.2.7 Tank-Bottom and Bilge Water

The tank bottoms of many petroleum 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 stormwater 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 of time, allowing toxic pollutants to dissolve into the aqueous phase.

EPA Region 1 considers tank-bottom water a “process wastewater,” since it can separate soluble toxic materials from petroleum products over time. To protect Town River Bay from toxic pollutants dissolved in tank-bottom and bilge water, Part I.A.8 of the Draft Permit prohibits the Facility from discharging any tank-bottom or bilge water alone or in combinations with stormwater or wastewater unless specifically approved by the U.S. Environmental Protection and the Massachusetts Department of Environmental Protection.

7. Hydrostatic Pressure Testing Procedure

Repairs sometimes (although rarely) are made at the facility to the tanks and the piping used for the storage and conveyance of products. To ensure safe working conditions during this maintenance work, storage tanks and/or pipe networks are rigorously cleaned (e.g., "Poly Brushed", "Squeegee Pigged") and certified as being product-free. After completing certain maintenance work, the vessels and/or pipe networks may be hydrostatically tested for leaks. Hydrostatic testing involves filling the vessel or pipe with water under pressure and monitoring pressure drops over time. If the system maintains a constant pressure, there are no leaks. River water or potable water may be used as a source of hydrostatic test water. Thus, hydrostatic test water discharge may contain minimal amounts of foreign matter, trace amounts of hydrocarbons, background material found in the river or residual chlorine.

As a precaution, Part I.A.11 of the Draft Permit requires any hydrostatic test water to be monitored (as further described below) and treated through the O/W Separator prior to being discharged to Town River Bay. In addition, the Draft Permit requires control of the flow of hydrostatic test water into the O/W to prevent it from exceeding the maximum design flow rate of the separator (200 gpm).

The Draft Permit requires collection of a minimum of six (6) representative samples of the hydrostatic test water:

For New and Existing Tanks, the Draft Permit requires the permittee to take:

- two (2) grab samples of the influent (one (1) grab sample of the fill (source) water during the first 10% of the fill segment time and one (1) sample during the last 10% of the fill-segment time);
- two (2) grab samples of the tank water (one (1) at the top and one (1) at the bottom of the tank), following testing but before draining (in-process); and
- two (2) grab samples of the effluent (one (1) sample of the discharge water during the first 10% of discharge and one (1) sample during the last 10% of discharge).

For New and Existing Pipelines, the Draft Permit requires the permittee to take:

- two (2) grab samples of the influent (one (1) grab sample of the fill (source) water during the first 10% of the fill segment time and one (1) sample during the last 10% of the fill-segment time);
- two (2) grab samples of the pipeline water following depressurization (in-process); and
- two (2) grab samples of the effluent (one (1) sample of the discharge water during the first 10% of discharge and one (1) sample during the last 10% of discharge).

These samples should provide adequate characterization of the influent, in-process, and effluent hydrostatic test water.

All samples are required to be analyzed for the following parameters:

- Total Suspended Solids (TSS);
- Oil & Grease (O&G);
- pH;
- Chemical Oxygen Demand (COD);
- Dissolved Oxygen (DO);
- PAHs (Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, and Napthalene); and
- VOCs (Benzene, Toluene, Ethylbenzene, and Total Xylenes).

The Draft Permit also requires testing for Total Residual Chlorine when potable water or a similar source of water which is likely to contain a residual chlorine concentration is used for hydrostatic testing.

The Draft Permit requires the hydrostatic test waters released from the tank(s) and treated through the O/W Separator to meet the effluent limitations of Part I.A.1 of the permit (e.g. TSS results must be equal to or less than 100 mg/L, Benzene results must be equal to or less than 51 ug/L, the quantitative methodology used for the PAH analysis must be capable of achieving a detection limit of less than or equal to 10 ug/L, etc.) and to satisfy all other conditions of this permit (e.g. discharge shall not cause a violation of the water quality standards of the receiving waters, discharge shall not cause objectionable discoloration to the receiving waters, etc).

Sampling of the above parameters is needed to provide adequate characterization of the influent and effluent hydrostatic test water and to identify whether there are any contaminant residuals present in the hydrostatic test water which might require the conditions in the permit to be modified or reopened.

Part I.A.11.a.4 of the Draft Permit requires the permittee to routinely observe the surface of the O/W Separator during discharge of hydrostatic test waters, 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 the transfer of hydrostatic test water and take steps to correct the problem.

The Draft Permit requires that, within ninety (90) days of completion of the hydrostatic test, the permittee submit a letter/report to EPA and the MassDEP summarizing the results of the test. This report is to include the following information:

- the date(s) during which the hydrostatic testing occurred;
- the volume of hydrostatic test water discharged;
- a copy of the laboratory data sheets for each analyses, providing the test method, the detection limits for each analyte, and a brief discussion of whether all appropriate QA/QC procedures were met and were within acceptable limits; and
- a brief discussion of the overall test results and how they relate to the Effluent Limitations in this permit.

8. Stormwater Pollution Prevention Plan (SWPPP)

This facility stores and handles pollutants listed as toxic under Section 307 (a) (1) of the CWA and engages in activities which could result in the discharge of pollutants to waters of the United States either directly or indirectly through stormwater runoff. These operations include one or more of the following items from which there is or could be site runoff: material storage, material processing and handling, blending operations, intra facility transfers, and loading/unloading of product.

Under the 2005 Permit, the Facility was required to maintain, update, and implement the Storm Water Pollution Prevention Plan (SWPPP) containing BMPs appropriate for the specific facility, including processes, procedures, schedules and activities, prohibitions on practices, and other management practices that prevent or reduce the discharge of pollutants in stormwater runoff. The 2005 Permit required the permittee to provide annual certification to EPA and the MassDEP documenting that the previous year's inspections and maintenance activities were conducted, results were recorded, records were maintained, and that the facility was in compliance with the SWPPP, and required the permittee to send a copy of the certification each year (with the DMRs) to EPA and MassDEP as well as append the certification to the SWPPP, within thirty (30) days of the annual anniversary of the effective date of the 2005 Permit. Since the issuance of the March 2005 permit, the Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) has been re-issued, which includes more detailed requirements related to stormwater pollution prevention. The Draft Permit requires the permittee to complete or update and to certify the SWPPP within 90 days after the effective date of the permit. The Draft Permit also requires the permittee to send a copy of the initial certification to EPA and MassDEP within one hundred and twenty (120) days of the effective date of the permit.

To achieve consistency with the MSGP and to control the activities/operations, which could contribute pollutants to waters of the United States, potentially violating the State's Water Quality Standards, the Draft Permit requires the facility to develop, implement, and maintain a Stormwater Pollution Prevention Plan (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)). Specifically, at this facility, routine maintenance and cleaning of the O/W 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.

The goal of the SWPPP is to reduce, or prevent, the discharge of pollutants through the stormwater system. The SWPPP serves to document the selection of, and if necessary, 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 by the permittee 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 stormwater discharges associated with industrial activity from the facility. 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. Because this facility's discharge is mainly stormwater runoff from a parking lot, sweeping, catch basin cleaning and spill prevention sections of the SWPPP are particularly important and should be closely followed.

SWPPP development and implementation generally 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 plant manager in its implementation;
2. Assessing the potential stormwater 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 stormwater contamination and in complying with the various terms and conditions of the Draft Permit.

9. Essential Fish Habitat

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. Sect. 1801 et seq. (1998)), EPA is required to consult with the National Marine Fisheries Service (NOAA Fisheries) if EPA's action or proposed actions that it funds, permits or undertakes, "may adversely impact any essential fish habitat." 16 U.S.C. Sect. 1855(b). The Amendments broadly define "essential fish habitat" (EFH) as "waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity." 16 U.S.C. Sect. 1802(10). Adverse impact means any impact which reduces the quality and/or quantity of EFH. 50 CFR Sect. 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 fish species for which federal Fisheries Management Plans exist. 16 U.S.C. Sect. 1855(b)(1)(A). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999.

A review of the relevant essential fish habitat information provided by NOAA Fisheries on the NOAA fisheries service habitat conservation division website[8] indicates that essential fish habitat has been designated for 23 managed species within the NOAA Fisheries boundaries encompassing the outfall location.

A copy of the managed species within the EFH is included in Attachment D of this Fact Sheet. EPA has concluded that the permitted discharge will not likely adversely impact the EFH and the managed species identified for this general location. This conclusion is based on the amount and frequency of the discharge, as well as effluent limitations and other permit requirements that are identified in this Fact Sheet. These factors are designed to be protective of all aquatic species, including those with EFH designations.

10. Endangered Species Act

Section 7(a) of the Endangered Species Act of 1973, as amended (ESA) grants authority to and imposes requirements upon Federal agencies regarding endangered or threatened species of fish, wildlife, or plants ("listed species") and habitat of such species that has been designated as critical (a "critical habitat"). The ESA requires every Federal agency, in consultation with and with the assistance of the Secretary of Interior, to insure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The United States Fish and Wildlife Service (USFWS) administers Section 7 consultations for freshwater species. The National Marine Fisheries Service (NOAA Fisheries) administers Section 7 consultations for marine species and anadromous fish.

EPA has reviewed the federal endangered or threatened species of fish, wildlife, or plants to see if any such listed species might potentially be impacted by the re-issuance of this NPDES permit.

According to the USFWS listing of federally endangered and threatened species, dated July 31, 2008, there are no species listed and no critical habitat within Norfolk County. According to the Massachusetts Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program list of rare species by Town[9], there are no federally listed endangered or threatened species in the vicinity of the discharge.

EPA believes the proposed limits are sufficiently stringent to assure that water quality standards will be met and to ensure protection of aquatic life and maintenance of the receiving water as an aquatic habitat. The Region finds that adoption of the proposed permit is unlikely to adversely affect any threatened or endangered species or its critical habitat. If adverse effects do occur as a result of this

[8] http://www.nero.noaa.gov/hcd/STATES4/CapecodtoNH/42107050.html
9 http://www.mass.gov/dfwele/dfw/nhesp/species_info/town_lists/town_q.htm

permit action, or if new information becomes available that changes the basis for this conclusion, then EPA will notify and consultation will be promptly initiated with both the USFWS and the NOAA Fisheries. A copy of the Draft Permit has been provided to both USFWS and NOAA Fisheries for review and comment.

11. Monitoring and Reporting

The effluent monitoring requirements have been established to yield data representative of the discharge under authority of Section 308 (a) of the CWA in accordance with 40 CFR §§122.41 (j), 122.44 (l), and 122.48.

The Draft Permit includes new provisions related to Discharge Monitoring Report (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 Clean Water Act permittees to submit discharge monitoring reports (DMRs) electronically via a secure Internet application to U.S. 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. NetDMR is accessed from the following url: http://www.epa.gov/netdmr. Further information about NetDMR, including contacts for EPA Region 1, is provided on this website.

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. To participate in upcoming trainings, visit http://www.epa.gov/netdmr for contact information for Massachusetts.

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 notice from MassDEP.

The Draft Permit also includes an "opt-out" request process. Permittees who believe they can not 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 facility would otherwise be required to begin using NetDMR. Opt-outs become effective upon the date of written approval by EPA and are valid for twelve (12) months from the date of EPA approval. 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 that receive 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.

12. State Certification Requirements

Under CWA section 401(a)(1), EPA may not issue a permit unless the MassDEP either certifies that the effluent limitations contained in this permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards or waives its right to such a certification. EPA has requested that MassDEP certify the permit. EPA expects that the permit will be certified. Regulations governing state certification are set forth in 40 CFR §§ 124.53 and 124.55.

13. 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 **Ms. Janet Moonan, U.S. Environmental Protection Agency, Region 1 (New England), 5 Post Office Square - Suite 100, Mail Code OEP06-1, Boston, MA 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 C.F.R. § 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.

14. EPA and MassDEP Contact

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:

Janet Moonan
U.S. Environmental Protection Agency
Region 1 (New England)
5 Post Office Square, Suite 100
Mail Code OEP06-1
Boston, MA 02109-3912

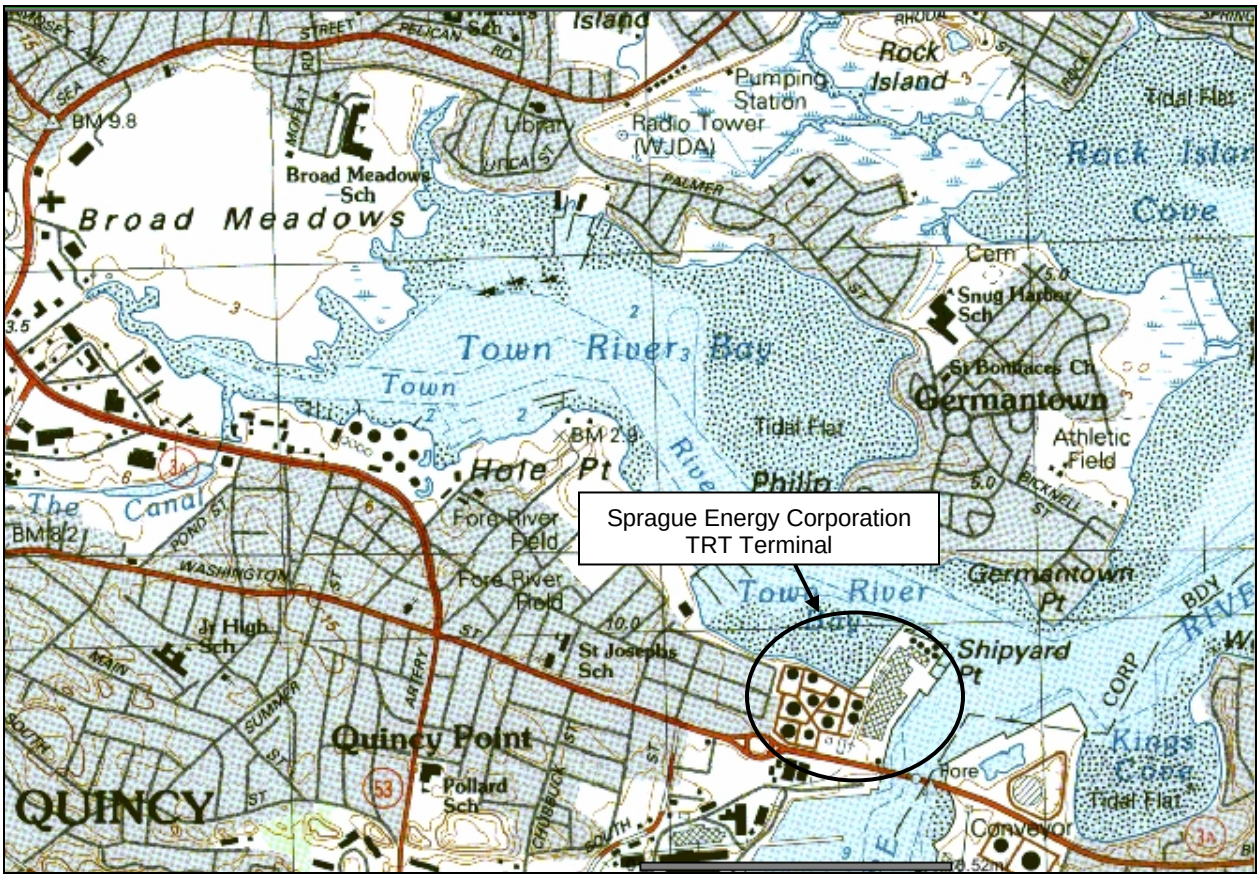
Telephone: (617) 918-1319
Email: moonan.janet@epa.gov

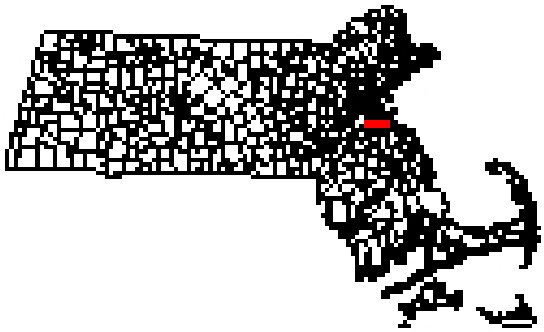
Kathleen Keohane
Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608
Telephone: (508) 767-2856
Email: kathleen.keohane@state.ma.us

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

15. Attachments

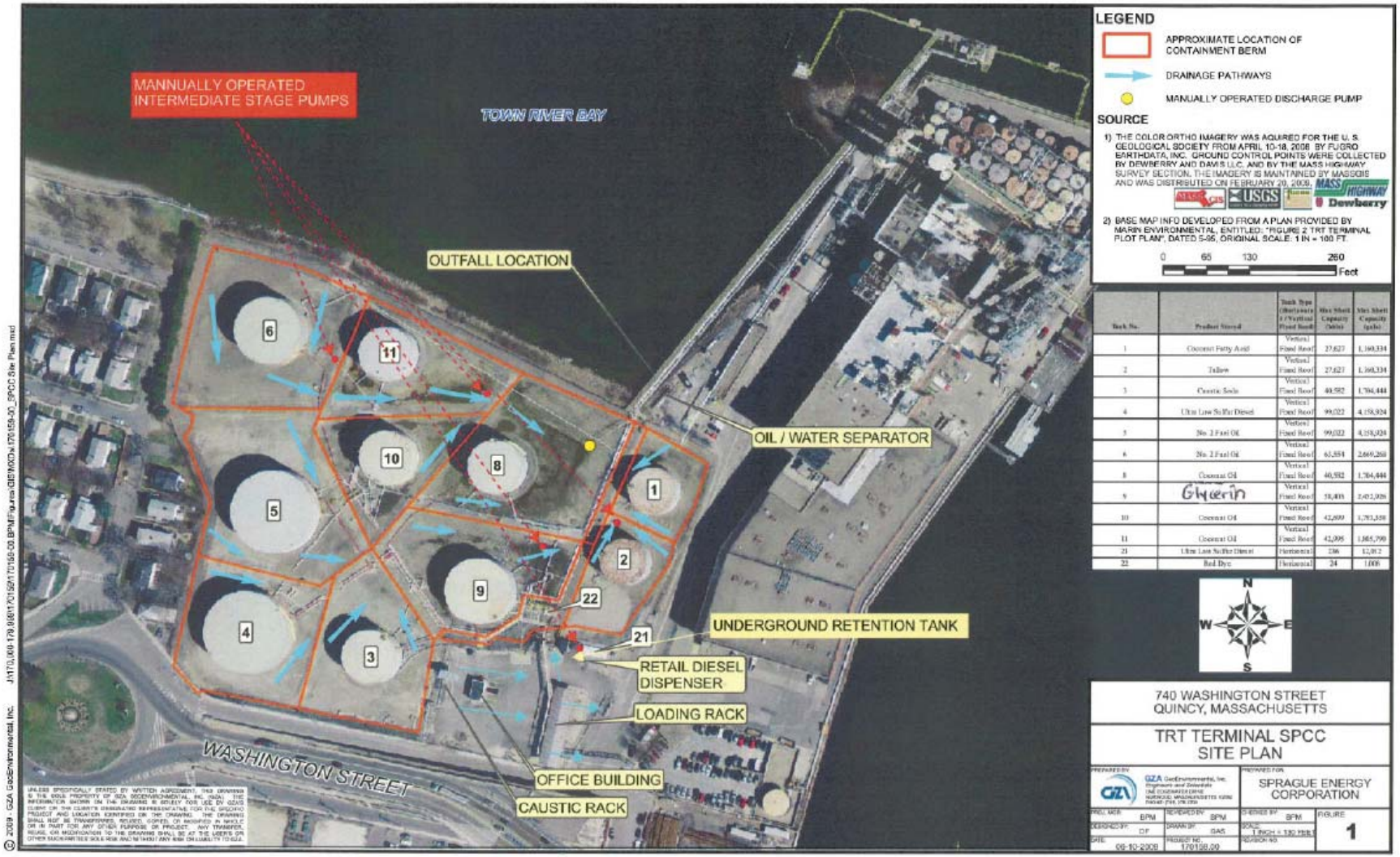
Attachment A – Site Locus Map





Source: MassGIS USGS Topographic Maps United States December 1995

Attachment B – Site Plan



Attachment C - DMR Data Summary, June 1, 2005 through March 31, 2010

MONITORING PERIOD END DATE	Flow, in conduit			Oil and grease (mg/L)	pH (s.u.)		Total Suspended Solids (mg/L)	
	Monthly Average (gal/day)	Total Month (gal)	Daily Maximum (gal/day)	Daily Maximum	Minimum	Maximum	Daily Maximum	Monthly Average
6/30/2005	173	5,199	-	5.0	7.5	7.5	4.0	4.0
7/31/2005	1,764	54,686	-	6.2	-	5.8	17.0	17.0
8/31/2005	8,129	252,000	-	5.0	-	6.4	17.0	4.0
9/30/2005	8,226	246,800	-	5.0	-	6.9	5.2	4.0
10/31/2005	25,548	792,000	-	6.3	-	5.3	4.0	4.0
11/30/2005	6,870	206,100	-	6.3	-	5.3	4.0	4.0
12/31/2005	5,613	17,400	-	6.0	-	7.3	4.0	4.0
1/31/2006	26,261	814,100	-	6.8	-	7.2	4.0	4.0
2/28/2006	10,971	307,200	-	5.0	6.7	7.6	9.3	6.6
3/31/2006	3,126	96,900	-	9.6	6.7	6.7	9.3	9.3
4/30/2006	3,227	96,800	-	5.1	7.5	7.5	7.3	7.3
5/31/2006	-	-	-	5.1	7.5	7.5	7.3	7.3
6/30/2006	-	-	-	5.4	7.3	7.7	4.0	4.0
7/31/2006	-	-	-	5.3	8.1	8.1	8.0	8.0
8/31/2006	3,116	96,600	-	6.1	7.3	7.3	4.4	4.4
9/30/2006	200	3,200	-	6.5	7.4	7.4	4.0	4.0
10/31/2006	200	200	-	5.8	7.0	7.0	5.4	5.4
11/30/2006	29,187	875,600	-	6.3	**6.1**	6.1	4.0	4.0
12/31/2006	-	-	-	-	**-**	-	-	-
1/31/2007	8,651	26,820	-	7.5	8.0	8.0	4.0	4.0
2/28/2007	No Discharge							
3/31/2007	23,826	738,600	-	5.1	7.1	7.1	4.4	4.4
4/30/2007	29,977	899,300	-	6.4	7.6	7.6	4.4	4.4
5/31/2007	7,751	240,300	-	5.4	7.0	7.0	4.0	4.0
6/30/2007	4,733	142,000	-	5.6	6.8	6.8	4.0	4.0
7/31/2007	4,697*	145,600*		5.8	7.0	7.0	4.0	4.0
8/31/2007	No Discharge							
9/30/2007	2,304	69,200	-	6.7	**5.1**	5.1	4.0	4.0
10/31/2007	52	1,600	-	6.7	7.2	7.2	4.0	4.0
11/30/2007	9,270	278,100	-	5.9	7.4	7.4	4.0	4.0
12/31/2007	19,832	614,800	-	-	7.1	7.1	4.0	4.0
1/31/2008	11,981	371,400	-	5.8	6.8	6.8	4.0	4.0
2/29/2008	31,772	921,400	-	5.2	6.5	6.5	4.0	4.0
3/31/2008	20,355	631,000	-	5.2	7.3	7.3	8.0	8.0
4/30/2008	9,380	281,400	-	5.0	7.3	7.3	4.0	4.0
5/31/2008	6,842	212,100	-	5.0	7.0	7.0	4.0	4.0
6/30/2008	380	11,400	-	5.2	7.6	7.6	4.0	4.0
7/31/2008	9,000	279,000	-	5.0	7.6	7.6	9.6	9.6
8/31/2008	6,300	195,500	-	5.0	6.9	6.9	4.4	4.4
9/30/2008	15,966	479,000	-	5.0	7.2	7.2	4.0	4.0

MONITORING PERIOD END DATE	Flow, in conduit			Oil and grease (mg/L)	pH (s.u.)		Total Suspended Solids (mg/L)	
	Monthly Average (gal/day)	Total Month (gal)	Daily Maximum (gal/day)	Daily Maximum	Minimum	Maximum	Daily Maximum	Monthly Average
10/31/2008	4,690	145,400	-	5.0	7.2	7.2	4.0	4.0
11/30/2008	12,163	364,900	-	5.0	7.0	7.0	4.0	4.0
12/31/2008	30,699	951,600	-	5.0	7.6	7.6	4.0	4.0
1/30/2009	Frozen conditions, no discharge							
2/28/2009	20,110	563,100	-	5.0	7.0	7.0	4.0	4.0
3/31/2009	17,996	557,900	-	5.0	7.1	7.1	4.0	4.0
4/30/2009	17,000	510,000	-	5.0	7.3	7.3	4.0	4.0
5/31/2009	3,616	112,100	-	5.0	7.6	7.6	4.0	4.0
6/30/2009	9,293	278,000	-	5.3	6.6	6.6	4.0	4.0
7/31/2009	19,606	607,800	-	5.0	6.8	6.8	4.0	4.0
8/31/2009	No Discharge							
9/30/2009	13,800	414,000	-	5.1	7.8	7.8	8.0	8.0
10/31/2009	11,406	353,600	94,400	5.0	7.2	7.2	16.0	16.0
11/30/2009	10,483	314,500	129,300	5.0	7.6	7.6	4.0	4.0
12/31/2009	16,561	513,400	125,900	5.0	7.3	7.3	4.0	4.0
1/31/2010	9,674	299,900	166,500	5.0	7.2	7.2	4.0	4.0
2/28/2010	20,918	585,700	162,200	5.0	7.1	7.1	4.0	4.0
3/31/2010	63,487	1,968,100	180,500	5.0	6.6	6.6	4.0	4.0
2005 Permit Limits	**Report**	**Report**		**15 mg/L**	**6.5**	**8.5**	**100 mg/L**	**30 mg/L**
Minimum	52	200	94,400	5	5	5	4	4
Maximum	63,487	1,968,100	180,500	10	8	8	17	17
Average	12,908	383,627	143,133	6	7	7	5	5
Standard Deviation	11,603	361,099	32,153	1	0	1	3	3
# Measurements	49	49	6	52	46	53	53	53
# Exceeds Limits	N/A	N/A	N/A	0	2	0	0	0

MONITORING PERIOD END DATE	Benzene (ug/L)	Benzo(a)anthracene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Chrysene (ug/L)	Dibenzo(a,h)anthracene (ug/L)	Indeno(1,2,3-cd)pyrene (ug/L)
	Daily Maximum	Daily Maximum	Daily Maximum	Daily Maximum	Daily Maximum	Daily Maximum	Daily Maximum	Daily Maximum
8/31/2005	-	-	-	-	-	-	-	-
11/30/2005	-	-	-	-	-	-	-	-
2/28/2006	-	10	10	10	10	10	10	10
5/31/2006	1	12	12	12	12	12	12	12
8/31/2006	1	15	15	15	15	15	-	15
11/30/2006	-	-	-	-	-	-	-	-
2/28/2007	1	15	15	15	15	15	15	15
5/31/2007	1	12	12	12	12	12	12	12
8/31/2007	1	10	10	10	10	10	10	10
11/30/2007	1	12	12	12	12	12	12	12
2/29/2008	1	10	10	10	10	10	10	10
5/31/2008	1	11	11	11	11	11	11	11
8/31/2008	1	10	10	10	10	10	10	10
11/30/2008	1	10	10	10	10	10	10	10
2/28/2009	1	10	10	10	10	10	10	10
5/31/2009	1	10	10	10	10	10	10	10
8/31/2009	1	11	11	11	11	11	11	11
11/30/2009	1	10	10	10	10	10	10	10
2/28/2010	1	10	10	10	10	10	10	10
2005 Permit Limits	**51 ug/L**	**Report**	**Report**	**Report**	**Report**	**Report**	**Report**	**Report**
Minimum	1	10	10	10	10	10	10	10
Maximum	1	15	15	15	15	15	15	15
Average	1	11	11	11	11	11	11	11
Standard Deviation	0	2	2	2	2	2	1	2
# Measurements	15	16	16	16	16	16	15	16
# Exceeds Limits	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Attachment D - Summary of Essential Fish Habitat (EFH) Designation

According to the NOAA fisheries service habitat conservation division website: http://www.nero.noaa.gov/hcd/STATES4/CapecodtoNH/42107050.html, the following information summarizes the Essential Fish Habitat for the Town River Bay.

Outfall 001 - 10' x 10' Square Coordinates

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

Square Description (i.e. habitat, landmarks, and coastline markers): 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., Back River, Weymouth, MA., N. Weymouth, MA., Weymouth Fore River, Quincy Pt., **Town River Bay**, Houghs Neck, and Moon Head.

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

Species	**Eggs**	**Larvae**	**Juveniles**	**Adults**
bluefish *(Pomatomus saltatrix)*			X	X
long finned squid *(Loligo pealei)*	n/a	n/a	X	X
short finned squid *(Illex illecebrosus)*	n/a	n/a	X	X
Atlantic butterfish *(Peprilus triacanthus)*	X	X	X	X
Atlantic mackerel *(Scomber scombrus)*	X	X	X	X
summer flounder *(Paralicthys dentatus)*				X
scup *(Stenotomus chrysops)*	n/a	n/a	X	X
black sea bass *(Centropristus striata)*	n/a		X	X
surf clam *(Spisula solidissima)*	n/a	n/a	X	X
ocean quahog *(Artica islandica)*	n/a	n/a		
spiny dogfish *(Squalus acanthias)*	n/a	n/a		
tilefish *(Lopholatilus chamaeleonticeps)*				
bluefin tuna *(Thunnus thynnus)*			X	X