UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
1 CONGRESS STREET - SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

NPDES PERMIT NO: **MA0000825**

PUBLIC NOTICE DATE:

NAME AND ADDRESS OF APPLICANT:

Global Petroleum Corporation
140 Lee Burbank Highway
Revere, MA 02151

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Global South Terminal, LLC
49 and 96 Lee Burbank Highway
Revere, MA 02151

RECEIVING WATER: **Chelsea River/Mystic River Watershed (MA71)**

CLASSIFICATION: **SB**

I. PROPOSED ACTION

The above named applicant has applied to the U.S. Environmental Protection Agency (EPA) for the re-issuance of a National Pollutant Discharge Elimination System (NPDES) permit to discharge treated storm water and treated hydrostatic test water into the designated receiving water. The permit which was issued to Global South Terminal, LLC (Global South) on October 2, 1997 (Current Permit), became effective on November 1, 1997, thirty days after the date of issuance. The permit expired on November 1, 2002. EPA received a permit renewal application dated December 13, 2001, from Global South. Since the permit renewal application was deemed both timely and complete by EPA, the permit has been administratively continued.

II. TYPE OF FACILITY

The Global South facility, which is located in Revere, Massachusetts, is primarily engaged in the receipt, storage, and distribution of petroleum products. The product spectrum handled by this facility consists of gasoline, diesel fuel, and No.2 Fuel Oil. Petroleum products are received in bulk quantities at either the marine vessel dock located at the adjacent Global Petroleum Corporation Terminal (NPDES Permit No. MA0003425) or through an inter-terminal supply network from neighboring facilities. Product is then transferred to the aboveground storage tanks located within the facility's tank farm on the east side of Lee Burbank Highway (Route 1A). Final distribution of product was originally conducted at the facility's terminal yard located on the opposite side of the highway at 96 Lee Burbank Highway. In 1999, the office and truck loading rack were closed and then dismantled. Truck loading operations currently take place at the Global Petroleum Corporation Terminal located next door at 140 Lee Burbank Highway.

The terminal yard, which consists of the former truck loading rack and office area, is now used for parking. The unpaved area to the west of the terminal yard is used in support of storm water collection and treatment activities. The NPDES discharge consists primarily of storm water runoff from pervious and impervious areas at the facility including the tank farm and terminal yard. On occasion, the facility will also discharge treated water used in the hydrostatic testing of recently repaired tanks. The storm water and hydrostatic test water discharges are to the Chelsea River through Outfall 001 (See Figure 1).

III. SUMMARY OF MONITORING DATA

A quantitative description of the discharge in terms of significant effluent parameters based on the discharge monitoring reports (DMRs) submitted by the facility during the time period of 1998 through 2003, is included in Attachment A.

IV. PERMIT LIMITATIONS AND CONDITIONS

The effluent limitations, monitoring requirements, and any implementation schedule, if required, may be found in Part I (Effluent Limitations and Monitoring Requirements) of the draft NPDES permit (Draft Permit). The permit application is part of the administrative file (Permit No. MA0000825).

V. PERMIT BASIS AND EXPLANATION OF EFFLUENT LIMITATION DERIVATION

A. General Requirements

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a NPDES permit unless such a discharge is otherwise authorized by the CWA. The NPDES permit is the mechanism used to implement technology and water quality-based effluent limitations and other requirements including monitoring and reporting. This Draft NPDES permit

was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and any 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.

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, 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.

EPA has not promulgated technology-based National Effluent Guidelines for storm water 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 Judgement (BPJ).

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 a site-specific criteria is 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 State 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 Draft Permit does not allow for the addition of materials or chemicals in amounts which would produce a toxic effect to any aquatic life.

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 anti-backsliding 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 must be as stringent as those in the Current Permit.

4. Anti-Degradation

The Massachusetts Anti-Degradation Policy is found at Title 314 CMR 4.04. All existing uses of the Chelsea River must be protected. The Chelsea River is classified as a Class SB water body by the State of Massachusetts and as such, is designated as a habitat for fish, other aquatic life and wildlife and for primary (e.g., wading and swimming) and secondary (e.g., fishing and boating) contact recreation. A Class SB water body may also be suitable for shellfish harvesting but there are no areas within the Chelsea River currently approved by the State for such use. This Draft Permit is being reissued with allowable effluent limits as stringent or more stringent than the Current Permit and accordingly will continue to protect the existing uses of the Chelsea River.

B. Description of Facility

The Global South Terminal is a bulk petroleum facility with operations consisting of the receipt, storage, and distribution of petroleum products. The facility, which is located in Revere, Massachusetts, covers approximately eight (8) acres. The Global South Terminal consists of two principal areas: a tank farm and a terminal yard (See Figure No. 2). The facility shares a marine vessel dock with a neighboring facility, as do several other terminals along the Chelsea River. Bulk product is received at the adjacent Global Petroleum Corporation's marine vessel dock and is transferred through a supply network to the Global South tank farm. The Global South facility

is also capable of shipping product to and receiving product from neighboring terminals via an inter-terminal supply network.

The tank farm, which is located on the east side of Route 1A at 49 Lee Burbank Highway, covers an area of slightly less than seven (7) acres. It generally consists of above-ground bulk storage tanks, product piping, and secondary containment berms. There are six (6) above-ground storage tanks in use with a total gross capacity of approximately 310,000 barrels (or 13 million gallons) of product. There are also three (3) inactive tanks with a total gross capacity of 90,000 gallons.

Secondary containment for the bulk storage tanks consists of a large earthen berm surrounding the entire tank farm. This external berm or dike has been sized to hold at least 110 to 130 percent of the largest tank's storage capacity. Within this larger containment area, there are several smaller earthen berms. These internal berms, which enclose two (2) tanks, are designed to contain the contents of the largest of the two tanks plus an added volume to hold any fire-extinguishment chemicals, water and/or precipitation. The internal berms are used to help prevent any spilled material from migrating into another tank area or into the Chelsea River. There is a valve located within each internal berm which can be manually opened or closed to either allow the storm water to enter the main storm water conveyance system or be retained within that bermed area. These valves are kept closed for safety considerations and are opened only when a bermed area is drained.

The terminal yard, which is located on the opposite side of Route 1A, at 96 Lee Burbank Highway, consists of the former office, the former truck loading rack area, and product transfer lines. The storm water treatment system is located in an unpaved area directly to the west of the terminal yard. The truck loading rack was demolished in 1999 and converted into an open parking area (Triton, 2001). Truck loading operations are now conducted at the adjacent Global Petroleum Corporation terminal. The office building is no longer in use and oversight of the facility is carried out by staff working at the adjacent Global Petroleum Corporation terminal.

The product spectrum at the facility during the previous permit cycle has consisted of gasoline, diesel fuel, and No.2 Fuel Oil. There are no other chemical processes/reactions which occur at the facility.

C. Description of Discharge

Storm water is primarily collected at the terminal within two (2) general areas: the secondary containment area of the tank farm and the terminal yard. To a certain extent, storm water accumulating in the unpaved areas of the tank farm evaporates and/or infiltrates into the ground before being directed to the storm water conveyance system. As mentioned above, there are internal berms located around each pair of tanks to control the runoff of any storm water or spilled product. Water accumulating within each of these bermed areas is directed to low elevation catch basins. When the valve located within each internal berm is open, the water entering the catch basin is directed to a common underground drainage line located along the southern edge of the earthen berm surrounding the tank farm. Staff at the facility are responsible

for ensuring that there are no petroleum products observed on the water (i.e., a visible sheen) before the storm water is discharged from each of the bermed areas.

The flow of storm water from the tank farm is controlled by two (2) valves located on the western wall of the main berm surrounding the entire tank farm. When these two (2) valves are open, water flows by gravity under the highway to a lift station (Lift Station No.1) located in the northeast corner of the terminal yard. There are two pumps located within Lift Station No. 1, each with a reported pumping capacity of 125 gallon per minute (gpm). Only one pump is typically operated at a time and the pump must be manually activated. When activated, water is pumped through an above-ground six-inch (6") pipe into the concrete retention basin located to the west of the former truck loading rack.

Drainage within the terminal yard is directed to a number of catch basins which in turn flow by gravity into a second lift station (Lift Station No. 2). Lift Station No. 2 is located to the west of the above-ground concrete retention basin. Lift Station No. 2 contains two pumps, each with a reported pumping capacity of 350 gpm. Typically, only one of these pumps is operated but under flooding conditions both pumps can be activated for a combined flow rate of 700 gpm. Storm water pumped from Lift Station No. 2 flows through an underground twelve-inch (12") pipe into the concrete retention basin.

The concrete retention basin, which also serves as the facility's primary oil/water (O/W) separator, has an overall storage capacity of approximately 57,000 gallons. The western end of the retention basin includes a weir baffle structure designed to separate potential floating product from storm water. A retro-fit coalescer plate pack was installed in the retention basin during the summer of 2004 to enhance the units capability for removing floating product and particulate matter. The coalescer pack for the O/W Separator has increased the maximum design flow rate of the unit to 700 gpm (Global, 2004).

From the retention basin, storm water flows into a second O/W Separator which is no longer functional. In the past, floating product which accumulated in the second O/W Separator was transferred to an adjacent 1,000 gallon underground storage tank (UST). The UST was removed in 1999. Floating product accumulating in the retention basin is now manually removed and recycled and/or disposed of off-site. The retention basin is cleaned on an annual basis.

Storm water flows by gravity from the second O/W Separator through an underground pipe to the facility's permitted NPDES outfall (Outfall 001) located on the eastern bank of the Chelsea River. The outfall has recently been sleeved with a new liner to limit ground water infiltration.

Global South has indicated that the flow through the retention basin is controlled by limiting the rate at which storm water is pumped into the unit. Flow rates through O/W Separators are not to exceed the design capacity of the separator (thereby minimizing the potential for carry-over). All storm water entering the retention basin is conveyed either through Lift Stations No. 1 and/or No. 2. As long as both of the lift stations are not operating at the same time, the design flow rating of the retention basin (i.e., 700 gpm) will not be exceeded. Global South has installed an inter-lock

system which prevents both lift stations from being operated at the same time to ensure that design flow rate is not exceeded.

Global South has indicated that all tank bottom water is consolidated and hauled off-site by a licensed waste hauler(s) for treatment and disposal elsewhere. There was one hydrostatic-test water discharges reported at the facility since the issuance of the Current Permit. There is no groundwater remediation system presently in operation at the facility. A permit modification or issuance of a separate NPDES permit would be needed should the facility initiate any discharge from a groundwater remediation system.

D. Discharge Location

The receiving water, Chelsea River (Boston Harbor/Mystic River Watershed/Segment MA71-06), is an urban tidal river flowing from the mouth of Mill Creek, between Chelsea and Revere, to Boston's Inner Harbor, between East Boston and Chelsea. For centuries, Chelsea River has been flanked by working industries, many of which used the channel to transport raw materials and finished goods. The river is officially classified as a Designated Port Area: a stretch of waterfront set aside primarily for industrial and commercial use. Chelsea River, which is also locally known as Chelsea Creek, is designated Class SB by the State of Massachusetts (See Part V.A.4. of this Fact Sheet for additional information related to the Class SB designation).

Under Section 303(d) of the CWA, states are required to develop information on the quality of their water resources and report this information to the EPA, the U. S. Congress, and the public. In Massachusetts, the responsibility for monitoring the waters within the State, identifying those waters that are impaired, and developing a plan to bring them into compliance with the Massachusetts Water Quality Standards (314 CMR 4.0) resides with the MADEP. The MADEP evaluated and developed a comprehensive list of the assessed waters and the most recent list was published in the *Massachusetts Year 2002 Integrated List of Waters* (MADEP, September 2003). The list identifies the Chelsea River as one of the waterways within the State of Massachusetts that is considered impaired. The impairment, as identified by the MADEP, is related to the presence of the following "pollutants", which were not considered to be present due to natural causes: priority organics, unionized ammonia, organic enrichment/low dissolved oxygen, pathogens, oil and grease, taste, odor and color, and turbidity.

The MADEP is required under the CWA to develop a Total Maximum Daily Load (TMDL) for a water body once it is identified as impaired. A TMDL is essentially a pollution budget designed to restore the health of a water body. A TMDL typically identifies the source(s) of the pollutant from direct and indirect discharges, determines 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, and outlines a plan to meet the goal. A TMDL has not yet been developed for the Chelsea River. In the interim, EPA is developing the conditions for this permit based on a combination of water quality-based standards and best professional judgement. Should a TMDL be developed in the future, and if that TMDL identifies that the discharge from the facility is causing or contributing to the impairment of Chelsea River, then the permit may be

re-opened. Additional details regarding the basis for the effluent limits established in the Draft Permit and how such limits relate to any of the "pollutants" identified above as impacting the water quality of the Chelsea River are further discussed below in Sections V.E.3 and V.E.5 of this Fact Sheet.

E. Proposed Permit Effluent Limitations and Conditions

The Global South Draft Permit is not being considered in isolation, but rather, in the context of all potential direct dischargers (including other petroleum bulk stations and terminals) of light and heavy hydrocarbons, which discharge either directly into Boston Harbor or indirectly (via its tributaries: the Island End, Chelsea, and Mystic Rivers).

Section 402(p) of the Clean Water Act requires that EPA issue NPDES permits for storm water discharges which were permitted prior to February 4, 1987 [See 40 CFR §122.26(a)(1)(i)]. Since the facility had a permitted storm water discharge prior to February 4, 1987, and the activities occurring at the facility do not fall within the description of industrial activities eligible for EPA's Storm Water Multi-Sector General Permit for Industrial Activities [See 40 CFR §122.26(b)(14)(viii)], the facility must continue to be permitted through an individual facility NPDES permit.

This Draft Permit is conditioned to: (1) better regulate plausible non-storm water discharges (e.g., hydrostatic test water) alone or in combination with storm water runoff to Boston Harbor, and (2) to better regulate ancillary operations that have the potential to contact storm water (e.g., materials storage, facility site-runoff, product blending, and product loading and unloading).

Storm water 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 promulgated through its General Permit for Storm Water Discharge Associated with Industrial Activity, that the minimum BAT/BCT requirement for storm water discharges associated with industrial activity is a Storm Water Pollution Prevention Plan (SWPPP) [57 FR, 44438]. EPA has included SWPPP requirements in the Draft Permit. In addition, EPA has included numeric effluent limitations in the Draft Permit to ensure that appropriate technology-based and water quality-based limits are applied and that petroleum constituents do not contribute to violations of the State's surface water quality standards.

Thus, the Draft Permit for Global South, authorizing the discharge of treated storm water and treated hydrostatic test water, includes numeric effluent limits and requires the development, implementation, and annual review of a storm water pollution prevention plan. The effluent parameters in the Draft Permit are discussed in more detail below.

1. Flow

The typical treatment technology employed by petroleum bulk storage terminals for storm water runoff is an O/W Separator. This device uses gravity to separate the lower-density oils from water; resulting in an oil phase above the oil/water interface and a heavier particulate phase (sludge) on the bottom of the separator. Accordingly, the sizing of an O/W Separator is based upon the following design parameters: water-flow rate; density of oil to be separated; desired percentage removal of oil; and the operating temperature range.

To ensure proper operation of installed O/W Separators such that the oil and/or particulate phases are not entrained to the waterway, it is important that the flow through the separator be maintained at or below the maximum design flow rate of the separator. In order to ensure that this criteria was being met, EPA and the MADEP required, as part of the Current Permit, that the facility identify both the maximum design flow rate of the O/W Separator and the measures taken by the facility to ensure that the maximum design flow rate is not exceeded (See Part I.A.4. of the 1997 NPDES permit).

In response to this permit requirement, Global South identified that the maximum design flow rate of the O/W Separator at the facility is 700 gpm (based on the most-recent changes made to the retention basin). Global South also indicated that the flow through the O/W Separator is controlled by limiting the rate at which storm water is pumped into the O/W Separator. The current configuration of the storm water conveyance and treatment system, as discussed in greater detail in Section V.C. of this Fact Sheet, shows storm water runoff collected from the tank farm and terminal yard being conveyed to the retention basin through the operation of two lift stations. As long as both lift stations are not operated at the same time, the flow through the retention basin (i.e., primary O/W Separator) will not exceed the design flow rate of 700 gpm identified for this unit. To ensure that the design flow rate is not exceeded, Global South installed an inter-lock system during the summer of 2004 which prevents both lift stations from being operated at the same time. Accordingly, Global South has demonstrated that appropriate controls are in place at the facility to control the flow through the O/W Separator. The Draft Permit requires that the facility provide written notification and receive approval by EPA and MADEP for any proposed changes which have the potential to cause the maximum design flow rate through the O/W Separator to be exceeded.

EPA and MADEP are using the design flow information submitted by Global South to identify the maximum daily effluent flow limit for Outfall 001 at the facility in accordance with Part I.A.8. of the Current Permit. The instantaneous flow rate of 700 gpm will become the new flow limit for Outfall 001 identified in the Draft Permit. The flow control device or system as described above and the identification of a instantaneous maximum flow rate should ensure compliance with "proper operation" as described at 40 CFR §122.41(e).

2. Total Suspended Solids (TSS)

The Draft Permit limit for TSS remains unchanged at 30 mg/l and 100 mg/l for the average monthly and maximum daily values, respectively. The monitoring frequency for this parameter has been reduced in the Draft Permit from semimonthly to monthly based upon the facility's performance during the previous permit cycle.

The TSS limits in the Draft Permit are based upon the limits established in the Current 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 Current Permit were developed based upon a BPJ determination. In making this determination, EPA considered the technology guidelines promulgated at 40 CFR Part 423 for the Steam Electric Power Point Source Category for guidance. Steam electric generating facilities, similar to bulk petroleum storage facilities, frequently include the storage of fuel oil on their premises. In developing effluent limits for 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 (USEPA, 1982). 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 (See 40 CFR Part 423 "low volume waste sources"). 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 established for steam electric facilities for bulk petroleum storage facilities.

There were several instances during the previous permit cycle when TSS limits were exceeded as shown in the summary of the discharge monitoring data submitted by the facility during the time period of 1998 to 2003 (See Attachment A to this Fact Sheet). Most of the exceedances, which occurred early on in the previous permit cycle, were for the monthly average TSS limit. However, the facility has been able to consistently meet its TSS limits over the last several years through the proper operation of a correctly-sized O/W Separator, appropriate source controls, routine inspections, preventative maintenance, and implementation of good housekeeping programs.

3. Oil and Grease

The Draft Permit limit for Oil and Grease (O&G) remains unchanged at 15 mg/L, for the maximum daily value. The monitoring frequency for this parameter has been reduced from semimonthly to monthly based upon the facility's performance during the previous permit cycle. O&G shall be measured using EPA method 1664. 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 and Maine 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. EPA has made a BPJ determination based upon the technology-based and performance information to continue with an O&G limit of 15 mg/L in the Draft Permit.

As noted in Section V.D. of this Fact Sheet, O&G is one of the pollutants identified by the State of Massachusetts as having contributed to the impairment of Chelsea River. The MADEP uses a narrative description (e.g., waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water) rather than a numeric threshold to identify whether this pollutant is an issue for a water body. The information contained in the *Massachusetts Year 2002 Integrated List of Waters* (MADEP, September 2003) and in the *Boston Harbor Watershed 1999 Water Quality Assessment Report* (MADEP, October 2002) does not clearly identify the basis for why O&G was identified as a problem in Chelsea River. However, the *Boston Harbor Watershed 1999 Water Quality Assessment Report* does mention a small number of historic spills which took place during the transportation and offloading of petroleum products along the Chelsea River. These spills, which would have produced a visible film on the surface of the water, would have likely exceeded the MADEP's criteria for O&G. Such spills are under the jurisdiction of the U.S. Coast Guard (See 33 CFR Part 154) rather than EPA's NPDES program and the results appear unrelated to the performance of any of the storm water treatment systems at the petroleum bulk stations and terminals along Chelsea River.

EPA believes that the controls in place at Global South (i.e., Draft Permit limit for O&G of 15 mg/L and Best Management Practices) should ensure that the storm water discharge from the facility does not contribute to the further impairment of Chelsea River. An effluent limit for O&G of 15 mg/L should ensure that the discharge from the facility will be free from oil, grease and petrochemicals that might produce a visible film on the surface of the water. Best Management Practices being implemented by the facility, which includes a Storm Water Pollution Prevention Plan, ensures that there is a program in place at the facility to limit the amount of pollutants being discharged with storm water runoff. Best Management Practices are fully enforceable permit conditions that serve to prevent pollution, rather than simply treat it. Global South has demonstrated its ability to meet the O&G permit condition in the Current Permit as shown in the summary of the discharge monitoring data submitted during the time period of 1998 to 2003 (See Attachment A to this Fact Sheet).

4. pH

Massachusetts State Surface Water Quality Standards require the pH of Class SA and Class SB waters to be within the range of 6.5 to 8.5 standard units (s.u.). The pH permit limit range of 6.5 to 8.5 as identified in the Draft Permit, which is to be monitored on a monthly basis, has been established in accordance with the State Surface Water Quality Standards. The discharge shall not exceed this pH range unless due to natural causes. In addition, there shall be no change from background conditions that would impair any uses assigned to the receiving water class. A summary of the discharge monitoring data submitted by the facility during the time period of 1998 to 2003 is included as Attachment A to this Fact Sheet. The Current Permit does not

include a limit for pH, and as such, a violation was not noted on the one occasion during the previous permit cycle when the pH being reported by the facility exceeded the range of 6.5 to 8.5 (See DMR entry under pH dated 4/30/01).

5. Polynuclear Aromatic Hydrocarbons

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.

There are sixteen (16) PAH compounds identified as priority pollutants under the CWA (See 40 CFR 423 - Appendix A). Several of these PAHs are well known animal carcinogens, others are not considered carcinogenic alone but can enhance or inhibit the response of the carcinogenic PAHs. Typically, exposure would be to a mixture of PAHs rather than to an individual PAH.

EPA required the permittee to submit a PAH pollutant scan (for the 16 PAH compounds identified as priority pollutants) from the storm water outfall at the facility as part of the permit renewal application process for the Current Permit because of the health concerns discussed above and the potential for PAHs to be present in some of the heavier petroleum distillate and residual products stored at the facility. A similar requirement was put in place for the petroleum bulk stations and terminals located in South Portland, Maine starting in the early 1990's.

The sampling results from this facility did not show the presence of any of the reported 16 PAH compounds confirming a similar trend noted for the majority of the hundreds of quarterly samples obtained from the South Portland facilities. As a result, the Current Permit was issued with a requirement for quarterly monitoring without any limits for the following seven (7) PAH compounds identified as probable human carcinogens:

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

All of the petroleum storage terminals and facilities that had a reasonable potential to discharge PAHs into Boston Harbor were required to continue monitoring for PAHs. The seven (7) PAH compounds identified above for monitoring purposes, were selected primarily based on their toxicity and presence in petroleum products. EPA proposed as part of the Current Permit to evaluate the monitoring results to be collected from these facilities and to determine whether there was a need to establish PAH limits.

EPA has reviewed the discharge monitoring data for PAHs submitted by Global South since the issuance of the Current Permit in 1997. The seven (7) PAHs analyzed for were not detected above their respective reporting limits during any of the quarterly sampling events which occurred since 1997. A majority of the other petroleum bulk stations and terminals located along Chelsea Creek also reported similar results. The reporting limits for each of the seven PAH compounds were typically around 1 µg/L (or 1 part per billion). A summary of the discharge monitoring data submitted by the facility during the time period of 1998 to 2003 is included as Attachment A to this Fact Sheet. A separate summary table providing the monitoring results from 2001 to 2003 for PAHs with their respective detection limits can be found in Attachment B to this Fact Sheet. As can be seen from a review of both attachments, there were no PAHs detected at the facility since the issuance of the Current Permit.

Based on EPA's review of the data from this facility as well as the other facilities for which PAH data were collected, EPA has concluded that permit limits for PAH compounds are not required at this time. However, given the potential health concerns related to PAHs, the type of petroleum products stored at the facility, the historical levels of PAHs which have been documented in the sediment of Chelsea River and Boston Harbor, and the fact that priority organics were one of the "pollutants" identified by MADEP contributing to the impairment of Chelsea River, EPA will require the facility to continue to monitor for PAHs without limits on a quarterly basis from the storm water outfall(s) at the facility. Future monitoring will be required to achieve the following Minimum Level (ML) of reporting for each of the PAH compounds identified below:

Benzo(a)anthracene	<0.05 µg/L	Benzo(a)pyrene	<2.0 µg/L
Benzo(b)fluoranthene	<0.1 µg/L	Benzo(k)fluoranthene	<2.0 µg/L
Chrysene	<5.0 µg/L	Dibenzo(a,h)anthracene	<0.1 µg/L
Indeno(1,2,3-cd)pyrene	<0.15 µg/L	Naphthalene	<0.2 µg/L

The ML is defined as the level at which the entire analytical system gives recognizable mass spectra and acceptable calibration points. This level corresponds to the lower points at which the calibration curve is determined based on the analysis of the pollutant of concern in reagent water.

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).

As noted in Section V.D. of this Fact Sheet, "priority organics" were one of the pollutants identified by the State of Massachusetts as having contributed to the impairment of Chelsea River. The information contained in the *Massachusetts Year 2002 Integrated List of Waters* (MADEP, September 2003) and in the *Boston Harbor Watershed 1999 Water Quality Assessment Report* (MADEP, October 2002) does not clearly identify the basis for identifying priority organics as a problem in Chelsea River. However, MADEP personnel indicated during followup conversations that the primary stressor under the priority organics category was believed to be polychlorinated biphenyls (PCBs). The *Boston Harbor Watershed 1999 Water*

Quality Assessment Report notes that a health advisory was issued by Massachusetts in 1988 for Boston Harbor based primarily on the presence of elevated levels of PCBs. The data from Boston Harbor was extrapolated to Chelsea River based on the fact that this also is an estuarine environment. PCBs are not typically associated with petroleum products and as such there is no limits or monitoring requirements for these compounds in the Current as well as the Draft Permit.

6. Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX)

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, or 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 (Potter, 1998). 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 storm water 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.

To better regulate the "potential" for gasoline and/or light distillates to come in contact with storm water via ancillary operations at this facility (i.e., such as product spills during loading and unloading operations), EPA included a quarterly monitoring requirement for BTEX and a maximum daily effluent limit of 500 µg/L for benzene in the Current Permit. The effluent limit of 500 µg/L established in the Current Permit was based on Best Professional Judgement and was derived from the demonstrated level of performance of Oil/Water Separators at a dozen oil terminals located along the East Coast and Southern States.

In establishing the effluent limit for VOCs in the Draft Permit, EPA reviewed all appropriate criteria including the most recent Federal Water Quality Criteria and the quarterly monitoring results for BTEX obtained from the discharges of all of the petroleum bulk stations and terminals along Chelsea River. A summary table providing the monitoring results for BTEX analysis for this facility during the 2001 - 2003 time period can be found in Attachment C to this Fact Sheet. EPA continues to believe that the approach taken in the Current Permit (i.e., quarterly monitoring for BTEX and the establishment of an effluent limit for benzene) is an effective way of monitoring and controlling the quality of the storm water discharge at the facility and as such has incorporated similar requirements into the Draft Permit. However, EPA has chosen to change the maximum daily effluent limit for benzene in the Draft Permit from 500 µg/L to 51 µg/L. The benzene limit of 51 µg/L represents the current Federal Water Quality Criteria for benzene which has been adopted by the State of Massachusetts (See 314 CMR 4.05(5)(e)). The new limit is based on the human health criteria associated with the consumption of aquatic organisms (USEPA, 2002). EPA believes that this more stringent limit is necessary for the protection of human health and to maintain the water quality standards established under Section 303 of the CWA.

7. Methyl Tertiary-Butyl Ether (MTBE)

Another potential 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). Since 1979 it has been used at low levels in gasoline (e.g., concentrations of 2-4 percent by volume) as a replacement to lead to enhance octane levels. MTBE has been used at higher concentrations (e.g, concentrations of 11-15 percent by volume) in some gasoline since 1992 to fulfill the oxygenate requirements established in the 1990 Clean Air Act Amendments. Due to its small molecular size and solubility in water, MTBE moves rapidly into the ground water, faster than do other constituents of gasoline. Because of these physical properties, MTBE has been detected in ground water in a growing number of studies conducted throughout the country. In some instances, these contaminated waters are a source of drinking water.

Most of the research conducted on MTBE to date has focused on human-health, specifically the health effects associated with the inhalation of the chemical. Independent expert review by groups who have assessed MTBE inhalation health risks have not concluded that the use of MTBE in gasoline poses an imminent threat to public health. However, there is limited data available concerning what the health effects may be for the most likely potential route of exposure - a person swallowing (ingesting) MTBE. As a result, EPA has not set a national drinking water standard for MTBE. However, some states have established their own limit for drinking water standards. Within the New England area, the states of New Hampshire and Massachusetts have established a drinking water standard for MTBE of 13 µg/L and 70 µg/L, respectively.

A more limited amount of information is available regarding the aquatic toxicity of MTBE. A public/private partnership was established in 1997 to help review the available information and

to develop aquatic toxicity data sufficient to calculate ambient water quality criteria for MTBE. The public/private partnership consisted of representatives from private companies, trade associations, and EPA. Existing aquatic toxicity data were evaluated for acceptability, consistent with EPA guidance, and additional freshwater and marine tests were conducted to satisfy the federal criteria database requirements. Through their efforts, the public/private partnership was able to develop proposed freshwater and marine water quality criteria for MTBE (ES&T, 2002). The preliminary freshwater criteria for acute and chronic exposure effects developed through this workgroup are 151 and 51 milligrams MTBE/Liter of water (or 151,000 µg/L and 51,000 µg/L), respectively. The preliminary marine criteria for acute and chronic exposure effects are 53 and 18 milligrams MTBE/Liter of water (or 53,000 µg/L and 18,000 µg/L), respectively.

Spillage and leaks from above-ground gasoline storage tanks and/or truck loading rack areas can transport quantities of MTBE to surface waters via the storm water drainage system. Discharges of MTBE via the storm water system have the potential to impact the water quality of Chelsea River. Thus, EPA included discharge monitoring requirements for MTBE (without limitations) as part of Current Permit issued to this facility in 1997. EPA required this monitoring in order to determine if any limitations on MTBE discharges from the terminal was warranted.

EPA has reviewed the discharge monitoring data submitted by the facility for MTBE and compared the results with available benchmarks. In identifying the most appropriate benchmark, EPA considered the type of discharge (e.g., intermittent) and location of the discharge (e.g., the Chelsea River is designated by the State of Massachusetts for the uses of protection of aquatic life and wildlife, and for primary and secondary contact recreation but not as a drinking water source). Based on the above information EPA used the preliminary marine water quality criteria for acute toxicity of MTBE (e.g., 53,000 µg/L) as its benchmark. As can be seen, from a review of the discharge monitoring data submitted by the facility (See Attachments A and C to this Fact Sheet), the concentrations of MTBE found in the outfall from this facility are typically several orders of magnitude smaller then the water quality criteria benchmark of 53,000 µg/L.

Based on EPA's review of the data from this facility as well as the other petroleum bulk stations and terminals which collected MTBE data, EPA has concluded that permit limits for MTBE are not required at this time. However, given the potential health concerns, the type of petroleum products stored at the facility, and the physical properties of this compound, EPA will require the facility to continue to monitor for MTBE on a quarterly basis from the storm water outfall(s).

8. Tank-Bottom and Bilge Water

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

Whereas storm water contacts only those hydrocarbons spilled on the ground and then only for short periods of time; tank bottom and bilge water remains in intimate proximity with petroleum derivatives for prolonged periods of time, allowing toxic pollutants to dissolve into the aqueous phase. EPA Region I considers both tank-bottom and bilge water "process wastewater", since soluble toxic materials can partition from the petroleum product into the water over time. To protect Boston Harbor from toxic pollutants dissolved in tank-bottom and bilge water, EPA is prohibiting the permittee from discharging any tank-bottom or bilge water alone or in combination with storm water or other wastewater.

9. Hydrostatic Test Water Discharges

Occasionally repairs are made at the facility to the tanks and the piping used for the storage and conveyance of petroleum 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 "gas-free." After completing certain maintenance work, the vessels and/or pipe networks may require hydrostatic testing (e.g., to be filled with water and monitored for changes in water levels) before product replacement. Some of the bulk petroleum storage facilities located along Chelsea River use the river as a source of test water. Thus, hydrostatic test water discharge may contain minimal amounts of foreign matter, trace amounts of hydrocarbons, and other background material found in the river. Other facilities use potable water as a source of test water and as a result their may be some residual chlorine present in the discharge. As a precaution, the hydrostatic test water shall be monitored as described below and treated through the O/W Separator prior to being discharged to the Chelsea River. In addition, 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.

At a minimum, four (4) representative samples shall be taken of the hydrostatic test water: one (1) grab sample of the influent test water; and three (3) serial-grab samples of the hydrostatic test water effluent. The influent grab sample shall be taken approximately midway through the fill segment of the hydrostatic test procedure. The three (3) effluent serial-grab samples shall be taken over the duration of the entire discharge segment of the hydrostatic test procedure. The first effluent serial-grab sample shall be taken during the initial phase of discharge; the second around the midpoint; and the third near the end of the discharge. The effluent serial-grab samples shall be obtained before discharge into the O/W Separator and/or mixing with any storm water or other non-storm water flow.

These influent and effluent samples shall be analyzed for the following parameters:

1. Total Suspended Solids (TSS)
2. Oil & Grease (O&G)
3. pH
4. Dissolved Oxygen (DO)
5. Total Residual Chlorine
6. BTEX

7. MTBE
8. PAHs (16 compounds)

Testing for total residual chlorine is only required when potable water or a similar source of water which is likely to contain a residual chlorine concentration is used for hydrostatic testing. Testing for MTBE is only required if the tank undergoing testing was recently (i.e., within three years of the proposed testing date) used to store gasoline.

During discharge (i.e., approximately at the same time the three effluent grab samples are taken), the flow exiting through the O/W Separator and outfall should be observed in order to prevent the inadvertent release of hydrocarbons to the receiving water(s). 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 permittee shall immediately halt the discharge of hydrostatic test water and take steps to correct the problem.

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 Draft Permit to be modified or reopened.

The permittee shall submit a letter/report to EPA and the MADEP, summarizing the results of the transfer within forty-five (45) days of completion of the test. This report shall contain: the date(s) of hydrostatic test water transfer; the source of the test water; the volume of test water transferred; a copy of the analytical results identifying the detection limits and associated quality assurance/quality control information for all of the discharge monitoring required in the Draft Permit; and a brief discussion of the overall test results and how they relate to the discharge parameters and their respective effluent limits identified in the Draft Permit. Any changes to these procedures must be approved by EPA and the State prior to their implementation.

10. Transfer of Storm Water from Global Petroleum Facility

This permit authorizes under certain conditions the transfer of storm water accumulated in the tank farm area of the adjacent Global Petroleum Corporation Terminal (Global Petroleum), NPDES Permit No. MA0003425, to the Global South facility for treatment. Such transfers have been requested and allowed in the past due to the more limited rate at which storm water can be treated and processed at the Global Petroleum facility. The extended storage of storm water in the tank farm area at the Global Petroleum facility could potentially limit the amount of petroleum product that could be stored within the secondary containment in the event of a spill. Also, EPA believes its acceptable to allow this transfer to take place since both tank farms store similar petroleum products and accordingly, both facilities have similar effluent limits. EPA and the MADEP are allowing the transfer of storm water from the tank farm area of the Global Petroleum facility to the tank farm area of the Global South facility as long as the monitoring, engineering controls, Best Management Practices, and reporting requirements identified in the Draft Permit are met.

11. Prohibition of Non-Storm Water Discharges

Non-storm water discharges including fire protection foam, either in concentrate form or as a foam diluted with water, are excluded from coverage under this permit. EPA believes that there is a significant potential for these types of discharges to be contaminated. Thus, the permittee is required to obtain a separate NPDES permit for these non-storm water discharges prior to any such discharge or seek the necessary approval(s) from the appropriate local pretreatment authority to discharge to the sanitary sewer system.

However, this permit authorizes some non-storm water discharges. These discharges potentially include treated effluent from firefighting activities; fire hydrant flushings; and potable water sources which may include vehicle, equipment, and surface wash-down waters which do not have chemicals (such as solvents, soaps, emulsifiers and/or detergents) added. To prevent hydrocarbon and/or particulate carry-over through the treatment system, the permittee shall not add chemicals, soaps, detergents, solvents, emulsifiers, etc. to any fresh water wash-down collection and treatment system without prior approval by EPA and the MADEP.

Treated effluent from these activities means that the effluent shall be directed to the O/W Separator either alone or commingled with storm water, prior to discharge from the outfall(s). No additional monitoring requirements, other than those specified in the Draft Permit, are necessary for these types of discharges.

12. Storm Water Pollution Prevention Plan

Pursuant to Section 304(e) of the CWA and 40 CFR §125.103(b), Best Management Practices (BMP) may be expressly incorporated into a permit on a case-by-case basis where necessary to carry out Section 402(a)(1) of the CWA. This facility stores and handles pollutants listed as toxic under Section 307(a)(1) of the CWA or pollutants listed as hazardous under Section 311 of the CWA and has ancillary operations which could result in significant amounts of these pollutants reaching the Chelsea River and Boston Harbor.

To control the activities/operations, which could contribute pollutants to waters of the United States via storm water discharges at this facility, the Current Permit required the facility to develop a Storm Water Pollution Prevention Plan (SWPPP) with site-specific BMPs. The SWPPP requirements and the BMPs identified therein are intended to facilitate a process whereby the permittee thoroughly evaluates potential pollution sources at the terminal and selects and implements appropriate measures to prevent or control potential discharges of pollutants in the storm water runoff. The SWPPP, upon implementation, becomes a supporting element to any numerical effluent limitations in the Draft Permit. Consequently, the SWPPP is as equally enforceable as the numerical limits.

The permittee has certified to EPA that a SWPPP was developed and implemented for this facility in accordance with the schedule and requirements identified in the Current Permit. The

Draft Permit continues to ensure that the SWPPP is kept current and adhered to, by requiring the permittee to maintain and update the SWPPP as changes occur at the facility. In addition, the Draft Permit requires the permittee to provide annual certification to EPA and the MADEP, documenting that the previous year's inspections and maintenance activities were conducted, results recorded, records maintained, and that the facility is in compliance with its SWPPP. A signed copy of the certification will be sent each year to EPA and MADEP as well as appended to the SWPPP within thirty (30) days of the annual anniversary of the effective date of the Draft Permit. This certification shall be signed in accordance with the requirements identified in 40 CFR §122.22. A copy of the most recent SWPPP shall be kept at the facility and be available for inspection by EPA and MADEP.

13. Additional Requirements and Conditions

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

The remaining conditions of the permit are based on the NPDES regulations, Part 122 through 125 and consist primarily of management requirements common to all permits.

VI. 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 (NMFS) 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. The review has focused primarily on marine species and anadromous fish since the discharge is to the Chelsea River (Mystic River Watershed) which ultimately flows into Boston Harbor. Given the urban nature of Chelsea Creek, EPA believes that it is unlikely that there would be any listed marine species (See Attachment D) or critical habitat present. Furthermore, effluent limitations and other permit conditions which are in place in this Draft Permit should preclude any adverse effects should there be any incidental contact with listed species either in Chelsea Creek and/or Boston Harbor. EPA has discussed the results of its determination with NMFS and a copy of the Draft Permit has been provided to NMFS for review and comment as part of an informal Section 7 consultation.

VII. ESSENTIAL FISH HABITAT

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq. (1998)), EPA is required to consult with the National Marine Fisheries Services (NMFS) if EPA's action or proposed actions that it funds, permits, or undertakes, "may adversely impact any essential fish habitat" (EFH). The Amendments define EFH as "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity," (16 U.S.C. § 1802 (10)). "Adverse impact" means any impact which reduces the quality and/or quantity of EFH (50 C.F.R. § 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. Id.

Essential fish habitat is only designated for species for which federal fisheries management plans exist (16 U.S.C. § 1855(b) (1) (A)). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999.

A review of the relevant essential fish habitat information provided by NMFS indicates that essential fish habitat has been designated for 15 managed species within the NMFS boundaries encompassing the outfall location. A copy of the managed species within the EFH is included in Attachment E. 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.

EPA has determined that a formal EFH consultation with NMFS is not required because the proposed discharge will not adversely impact the EFH. If adverse impacts are detected as a result of this permit action, NFMS will be notified and an EFH consultation will promptly be initiated.

VIII. STATE CERTIFICATION REQUIREMENTS

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

IX. ADMINISTRATIVE RECORD, PUBLIC COMMENT PERIOD, HEARING REQUESTS, AND PROCEDURES FOR FINAL DECISION

The Administrative Record containing the documents forming the basis of this Draft Permit is on file and may be inspected at the EPA Record Center located in Boston at 1 Congress Street

between 9:00 a.m. and 5:00 p.m., Monday through Friday, except holidays. Individuals interested in reviewing the Administrative Record should contact the Record Center staff at (617) 918-1440 to schedule an appointment.

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 the U.S. EPA, Office of Ecosystem Protection Attn: Neil Handler, 1 Congress Street, Suite 1100 (CIP), Boston, Massachusetts 02114-2023 or via email to handler.neil@epa.gov. **The comments should reference the name and permit number of the facility for which they are being provided.**

A public hearing will be held after at least thirty (30) days public notice, since the Regional Administrator has determined that significant public interest exists regarding this Draft Permit. In reaching a final decision on the Draft Permit the Regional Administrator 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 a public hearing, if such hearing is held, the Regional Administrator 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 thirty (30) days following the notice of final permit decision, any interested person may submit a request for a formal evidentiary hearing to reconsider or contest the final decision. Requests for a formal evidentiary hearing must satisfy the Requirements of 40 CFR §124.74. In general, the reader should reference 40 CFR 124–PROCEDURES FOR DECISION MAKING, Subparts A, D, E and F for specifics relative to this section.

X. EPA & MADEP CONTACTS

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

Neil Handler, EPA New England - Region I
1 Congress Street, Suite 1100 (CIP)
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Telephone: (617) 918-1334 FAX: (617) 918-0334
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Paul Hogan, Massachusetts Department of Environmental Protection
Division of Watershed Management, Surface Water Discharge Permit Program
627 Main Street, 2nd Floor Worcester, Massachusetts 01608
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email: paul.hogan@state.ma.us

_____
Date

Linda M. Murphy, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

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FIGURES

ATTACHMENT A

SUMMARY OF DISCHARGE MONITORING REPORT (DMR) RESULTS

(1998 TO 2003)

GLOBAL SOUTH TERMINAL, LLC

NPDES PERMIT NO. MA0000825

ATTACHMENT B

SUMMARY OF DISCHARGE MONITORING REPORT (DMR) RESULTS

(2001 TO 2003)

FOR POLYNUCLEAR AROMATIC COMPOUNDS

GLOBAL SOUTH TERMINAL, LLC

NPDES PERMIT NO. MA0000825

ATTACHMENT C

SUMMARY OF DISCHARGE MONITORING REPORT (DMR) RESULTS

(2001 TO 2003)

FOR VOLATILE ORGANIC COMPOUNDS

GLOBAL SOUTH TERMINAL, LLC

NPDES PERMIT NO. MA0000825

ATTACHMENT D

ENDANGERED SPECIES LIST

ATTACHMENT E

ESSENTIAL FISH HABITAT DESIGNATION