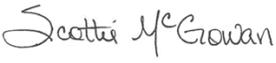
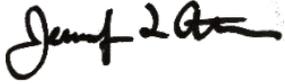
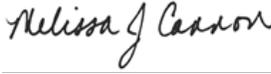


Global Companies LLC - Chelsea Eastern Ave Terminal Storm Water Pollution Prevention Plan (SWPPP)

NPDES Permit MA0001091

January 2025

Quality information

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Revision	Revision date	Details	Authorized	Name	Position

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Introduction

The Terminal will keep a copy of the current SWPPP and any updates, BMPs implementation documentation and all SWPPP certifications (the initial certification, recertification and annual certifications) signed during the effective period of the Terminal's NPDES Permit. All documentation of SWPPP activities will be maintained in the Terminal Manager's Office for at least 5 years and provided to the EPA and/or the MassDEP upon request. Copies of the current Plan and all certifications will be submitted to the EPA for posting on the EPA Region I's Chelsea River¹ Terminals public website. Except for data determined to be confidential under the Permit's Standard Conditions, all reports prepared in accordance with the Permit should be made available for public inspection at the offices of the MassDEP and/or EPA Region I.

Stormwater discharges into the Chelsea River (also known as Chelsea Creek) from the Global Companies LLC (Global) Chelsea Eastern Ave Terminal in Chelsea, Massachusetts Bulk Petroleum Terminal, are regulated under the Terminal's Individual National Pollutant Discharge Elimination System (NPDES) Permit #MA0001091 (Appendix A). This permit is issued in accordance with the Federal Clean Water Act (CWA) and the Commonwealth of Massachusetts Clean Water Act, both as amended. This Stormwater Pollution Prevention Plan (SWPPP) has been developed for the facility in accordance with the applicable regulations. Please note that this Terminal was formerly owned and operated by Gulf Oil Limited Partnership (Gulf, Gulf Oil, Gulf Oil LP) and there may be references to Gulf in the permits and/or various attachments.

On January 13, 2023, Gulf notified the US Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) of its intent to transfer the NPDES Individual Stormwater Permit, No. MA0001091, for the Gulf Oil Chelsea Terminal facility, located at 281 Eastern Avenue in Chelsea, Suffolk County, Massachusetts to its wholly-owned subsidiary and affiliate, Chelsea Terminals, LLC. Gulf consummated this corporate reorganization on April 9, 2024, which created a wholly owned subsidiary, Chelsea Terminals, LLC. Subsequently, Gulf sold all of its ownership interests in Chelsea Terminals, LLC to Global Terminal Holdings LLC, also on April 9, 2024. Chelsea Terminals, LLC was the direct owner and Permittee for the Facility as of the sale date. Global made a post-transaction change in the name of the Facility owner from Chelsea Terminals, LLC to Global Chelsea Terminals LLC (no change in corporate organization or control).

The goal of developing and implementing this SWPPP (the Plan) is to create a program for: continually assessing the potential impact Significant Materials may have on precipitation at the Terminal or on stormwater run-on from areas adjacent to the Terminal; implementing and maintaining practices which eliminate or minimize the discharge of Significant Materials from the facility via stormwater runoff; reviewing the success of the implemented practices; and amending this SWPPP when appropriate.

Per 40 C.F.R. 122.26 (b)(12), *Significant materials* includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges. Materials or machinery that are not exposed to stormwater or that are not located at the facility are not considered "Significant Materials".

The Permittee ("Global" or "The Terminal") will certify **at least annually** that the Terminal is in compliance with the SWPPP requirements in accordance with Part I. C. 2. d. of the Terminal's NPDES Permit. The Terminal will, **at least annually**, certify that the previous year's inspections, corrective actions, control measures and training activities are conducted, and records are maintained, as described in this SWPPP. If the Terminal is not in compliance with any limitations and/or Best Management Practices (BMPs) described in this SWPPP, the annual certification will state the non-compliance and the remedies which

¹ The Chelsea River is known locally as the Chelsea Creek.

are being undertaken. The annual certifications will be signed in accordance with the requirements identified in Part II.D.2 of the Terminal's NPDES Permit Standard Conditions which references the requirements of 40 C.F.R. 122.22. Global will document in this SWPPP any violation of numeric or non-numeric effluent limitations with the date and description of the corrective actions taken.

The CWA provides that any person who knowingly makes any false statement, representation or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or non-compliance may result in the imposition of criminal penalties as provided for in Part 309 of the CWA (also see Part II.A.1.b of the Permit).

This plan was developed using the format outlined in the EPA Publication 833-B-09-002, ***Developing Your Storm Water Pollution Prevention Plan, A Guide for Industrial Operators, March 2021***. It incorporates and is consistent with the requirements of Part 311 of the CWA and the Terminal's Individual NPDES Permit #MA0001091. The Terminal's Permit references several sections of the current Multi-Sector General Permit (MSGP) and the requirements of those sections are incorporated in this Plan. This Plan also references the Terminal's Facility Response Plan (FRP) and Spill Prevention, Control and Countermeasure (SPCC) Plan. If any part of this Plan is found to be inconsistent with the Terminal's NPDES Permit, the current MSGP or the CWA due to an error by the author of this plan, the requirements of those documents will be followed, and this Plan will be corrected.

Stormwater Pollution Prevention Plan Certification

In accordance with requirements of the United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity (Part 6.1 of MSGP), this Stormwater Pollution Prevention Plan (SWPPP) for the Global Chelsea Eastern Ave Terminal has been prepared by qualified personnel and the undersigned provides the following certification:

I certify under penalty of law that this document and all attachments were prepared at my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



(Signature)



(Date)

Steven D. Charron, CHMM
Director, Environmental
Global Companies LLC

Record of Changes

Date	Page or Section Numbers Affected	Description of Changes	Authorized By
February 1, 2015	All	Complete rewrite and update of Plan in accordance with the Terminal's 2014 NPDES Permit.	Doug Harrison, Gulf Oil
August 27, 2016	Cover Page, Record of Changes, Sections 1.1, 1.2 and 2.1, Table 3-1, Figures 2 and 3, Appendix D	Corporate Address, SWPP Team (EHS Supervisor replaces Terminal Supervisor), Team Member Responsibilities, Description of Storage, Tank Table, LNG Refueling Unit Removed from Terminal, Pages from FRP	Andrew Adams, Gulf Oil
September 2019	Cover Page, ToC, RoC, Sections 1.2, 2.1, 2.2, 3.1, 3.2, 3.3, 4.1, 4.9.5, 4.9.8, 6.2 & 8.0, Figures 2 & 3, Appendix C	Plan Renewal, Cover Page, Table of Contents, Record of Changes, All Footers, Team Members, Facility Operations, Garage Drains, Tank Table, Facility Activities, Sampling Data, Stormwater Drainage, Loading Rack Firefighting Foam, "No Discharge" Reporting, Proposed New Work, Site Plan, Drainage Plan and Spill History	Andrew Adams, Gulf Oil
March 2023	Cover Page, ToC, Introduction, RoC, All Sections, All Figures	Cover Page, All Footers, Table of Contents, Record of Changes, All Sections changed to reflect the requirements of the Terminal's NPDES Permit effective 12/01/2022	Andrew Adams, Gulf Oil
August 2024	All, Plan Certification Page, Sections 3.1, 3.2, 6.4.6	Conversion to Global from Gulf, Tank Table Additive Tanks, Facility Activities Assessment, EPA Region I reporting phone number	Andrew Adams, Global Companies LLC
January 2025	Sections 1, 3.1, 4.4.2.6, 4.7.1, 5.2, 5.3, 5.4; Appendices C, D, & F, G & H	Updated Section 1 Stormwater Pollution Prevention Team, Section 3.1 Tank Table, Section 4.4.2.6 Prevention of Discharges From Major Storm and Flood Event BMPs, Section 4.7.1 Prohibited Discharges, Section 5.2 and 5.3 Quarterly Inspection and Visual Assessment. Deleted Sections 5.4 and 8, Appendix F Annual Reporting Form and Appendix H Flood Resiliency Evaluation Update. Updated Appendix C Spill History. Appendix D replaced Spill Notification Form. Appendix F updated Inspection Form and Visual Assessment Form. Appendix G updated form.	Sara Walsh, Global Companies LLC

1. Stormwater Pollution Prevention Team

1.1 Team Member Contact Information

In accordance with the 2021 MSGP Part 6.2.1, the SWPPP Team² is provided below. Global Chelsea Eastern Ave's Terminal SWPPP Team consists of three primary individuals (all Global employees) as well as an independent environmental contractor who assists with sample collection, data analysis and NPDES permit implementation expertise. Each member of this Team is provided access to the applicable portions of the permit, this SWPPP, and other relevant documents kept with this SWPPP that are necessary for its implementation. Individuals and general responsibilities of the Terminal's SWPPP Team are provided below:

Team Member by Title

Name: Andrew Adams Title: Chelsea Eastern Ave Terminal Manager Telephone Number: Cell (207) 432-2583
Name: Sara Walsh Title: Environmental Compliance Specialist Telephone Number: Cell (781) 382-8710
Name: Steve Charron Title: Director, Environmental Telephone Number: Cell (781) 697-1253
Name: Jennifer Atkins Title: AECOM Environmental Consultant Telephone Number: Office (978) 905-2112

1.2 Team Member Responsibilities

The following is a list of the responsibilities of the Terminal Manager required under this SWPPP:

- Implement the engineering and operational control measures described in this plan and the Terminal's NPDES Permit, including the monitoring requirements, special conditions, reporting requirements and state permit conditions identified in Part I of the Permit and the applicable sections of Part II, Standard Conditions of the Permit.
- Comply with the requirements of any other spill plan and response measures developed by or for the facility to control discharges of pollutants to the environment.
- Ensure the Terminal is inspected at least daily and stormwater accumulated within the secondary containment areas is evaluated prior to discharge to the stormwater drainage system.
- Ensure the required monthly, quarterly, and annual discharge sampling is performed as required and the results are reported to the appropriate state and federal agencies in accordance with the Terminal's Individual NPDES Permit.
- Ensure secondary containment areas are maintained and repaired as necessary to ensure integrity.
- Ensure facility security is maintained in accordance with EPA regulations (40 C.F.R. 112.7(g)) and United States Coast Guard (USCG) regulations (33 C.F.R. 105) to minimize the potential for releases resulting from vandalism or terrorism.
- Ensure, at least once per quarter, inspection of all areas with industrial materials or activities exposed to stormwater and all structural controls used to comply with effluent limits in the NPDES

² The SWPPP Team are qualified personnel pursuant to the MSGP for purposes of preparing this SWPPP.

Permit by qualified personnel (AECOM) with one or more members of the stormwater pollution prevention team (Global).

- Ensure quarterly visual assessment of stormwater samples from the outfall is conducted in accordance with Parts 3.1 and 3.2 of the 2021 MSGP as required by Part I.C.1.b.(1) of the Terminal's NPDES Permit (see Section 5.2 of this Plan).
- Ensure equipment and/or vehicle maintenance is performed indoors or under cover where possible.
- Ensure equipment and vehicles are maintained in good working condition (e.g., free of leaks, drips, etc.).
- Provide annual training for employees working in areas where Significant Materials are or will be used or stored to minimize the possibility of pollutant discharge caused by human error.
- Ensure contractors perform their work in a manner that does not cause a discharge of a Significant Material or is contrary to any requirements of this Plan.
- Ensure that any corrective actions required by Part 5.1 of the MSGP are performed and the corrective action documentation is maintained as required by Part 5.3 of the MSGP.
- Ensure this Plan is amended and updated within 14 days for any changes at the Terminal that result in a significant effect on the potential for the discharge of pollutants to the waters of the United States or that affect the SWPPP.
- Maintain records of inspections, maintenance of process equipment and personnel training associated with this SWPPP. Records will be maintained for at least five (5) years.
- Maintain a list of significant spills (i.e., reportable quantities) and significant leaks of toxic or hazardous pollutants that occurred at the Terminal as of the effective date of the NPDES Permit to the present and maintain the list to include up-to-date information.
- Ensure a responsible corporate officer certifies, at least annually, that the Terminal is in compliance with the SWPPP requirements, and that the previous year's inspections and maintenance activities were conducted, results recorded, records maintained and that the Terminal is in compliance with its NPDES Permit.

In the absence of the Terminal Manager, the Terminal Supervisor is responsible for all the duties listed above.

Under the direction of the Terminal Manager or Terminal Supervisor, the Terminal Operators are responsible for performing the required Terminal inspections and for evaluating the stormwater that may have accumulated inside the Terminal's secondary containment system prior to its discharge to Chelsea Creek through the Terminal's drainage system. Terminal Operators are required to report to the Terminal Manager or Supervisor any condition they observe that has resulted or may result in a spill of a reportable quantity of a pollutant or a prohibited discharge to the waters of the United States (i.e., Chelsea Creek).

2. Site Description

2.1 Facility Description and Operations

The Terminal is located on an approximately 48.6-acre lot at 281 Eastern Ave³ in Chelsea, Massachusetts (Latitude 42° 23' 34"; Longitude -71° 01' 05") on the northwest shore of Chelsea Creek. Surrounding land use is commercial, industrial and residential. Chelsea Creek is tidally influenced by Boston's Inner Harbor. Chelsea Creek is classified as a Class SB (CSO) water body by the Commonwealth 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 Creek currently approved by the Massachusetts Division of Marine Fisheries for such use (see [GBH4.pdf \(massmarinesfisheries.net\)](#)). The area of Chelsea Creek around the Global Terminal is one of ten (10) Designated Port Areas (DPAs) established by the Massachusetts Office of Coastal Zone Management to promote and protect water-dependent industrial uses, therefore recreational activities on Chelsea Creek are limited.

Equipment and features at the Terminal include the vessel dock, bulk product tanks and associated piping, truck loading rack, two pump-off stations, a truck diesel re-fueling station, an office building, employee locker room and maintenance area, 2 warehouses, the Tire Room storage building, the Cumberland Farms Garage and the Foam House and associated fire suppression system piping. The Terminal's marine dock is located on Chelsea Creek. The Terminal Tank Farm, Terminal Yard including the truck loading rack, the Terminal Office and other facilities are located between Chelsea Creek and Eastern Avenue.

Global's Chelsea Eastern Ave Terminal receives distillates, gasoline, naphtha, denatured ethanol, butane, biofuel, used cooking oil, fuel additives and other products via barge, tank vessel and/or tank truck. The Terminal distributes distillates and ethanol/gasoline blend to customers through the truck loading rack. The Terminal has the capability of loading distillate products onto vessels at the marine dock. Distillate products include, but are not limited to, No. 2 Diesel, Ultra Low Sulfur Diesel and Heating Oil. Neither gasoline nor denatured ethanol can be loaded onto marine vessels at the Global dock. Gasoline products include regular and premium unleaded products.

Bulk petroleum products and denatured ethanol are primarily delivered to the Terminal via tank ships and tank barges. The Terminal's marine dock is located adjacent to the Terminal's tank farm and Terminal yard on the northwest shore of the Chelsea Creek. Product is transferred from vessels to the bulk aboveground storage tanks located in the tank farm via product piping. The Terminal's marine dock is capable of handling only one tank barge or one tank ship at a time for loading and unloading operations. The dock is equipped with four loading arms through which product is pumped through the six product lines running from the dock to the Terminal's bulk product storage tanks. Pumping rates from the vessels to the Terminal's storage tanks (product receipt) generally range between 3,000 barrels per hour and 12,000 barrels per hour but can reach 20,000 barrels per hour using all 4 loading arms. The pumping rate from the tank farm to vessels is between 2,000 barrels per hour and 2,500 barrels per hour.

Additives are delivered to and stored at the Terminal to be added to bulk petroleum products. Additives are typically received at the Terminal via tank truck but may also be delivered to the Terminal in 55-gallon drums to be pumped into the additive tanks manually by Terminal personnel. Additives and denatured ethanol are mixed and dispensed with the distillate or gasoline products, as applicable, at the Truck Loading Rack. Lubricity (Tank 125) can be added to the appropriate product as it is transferred from the vessel at the marine dock to the tanks in the Tank Farm. Red dye is added to the appropriate distillate product at the truck loading rack as the product is dispensed. The heating oil tanks for the Locker Room, Cumberland Farms Garage and Foam House receive heating oil for consumptive use via tank truck.

³ City of Chelsea Tax Assessor records identify 4 parcels – 123 Eastern Ave (35 acres), 283 Eastern Ave (8.36 acres), 285 Eastern Ave (2.3 acres) and 287 Eastern Ave (2.94 acres). Mailing address is 281 Eastern Ave.

Gasoline and distillate products are distributed to tank trucks via the Terminal truck loading rack. The truck loading rack consists of seven loading bays (Bays 1, 2, 4, 5, 6, 7 and 8). Trucks at the loading rack can load gasoline and/or distillates at bays 2, 4, 5 and 6. Bays 7 and 8 are distillate only. Distillate products are top loaded at Bay 1. Bay 2 can load top load distillates and bottom load gasoline products. Bays 4, 5, 6, 7 and 8 are bottom loading only.

The Terminal has two stations where petroleum products can be transferred from tank trucks to the bulk product storage tanks. One pump-off station is located southwest of the truck loading rack and another is in the Tank Farm by Tank 125. Gasoline can be pumped through the truck pump-off located southwest of the truck loading rack to Tanks 108 or 109. Both distillates and gasoline can be off-loaded from tank trucks to the bulk product tanks using the pump-off station by Tank 125. The pump-off station by Tank 125 is also used to pump-off denatured ethanol, butane, used cooking oil and biofuel from tank trucks to the bulk product tanks.

Naphtha is typically pumped from tank barges to Tank 105 and can be transferred from Tank 105 to Tanks 110, 112, 113 or 116 and mixed with the gasoline in those tanks. Biofuels can be received via barge at the marine dock or via tank truck and mixed with the distillate products in Tanks 101, 102, 106, 111, 114 and 117. Used cooking oil (UCO) is delivered by tank truck and pumped into Tank 111. Butane is received via tank truck and mixed with gasoline products in Tanks 110, 112, 113 and 116.

See Section 3.2 – Facility Activities Assessment below for more information.

2.2 Site Locus and Site Drainage Plans

Figure 1 – Site Locus and Figure 2 – Site Drainage Plan are included as part of this Plan. These drawings include the following information as appropriate:

- The boundaries of the property and size of the property in acres;
- The location and extent of significant structures and impervious surfaces;
- Directions of stormwater flow (note: no flows with significant potential to cause erosion have been identified at the Terminal);
- Locations of all stormwater control and management measures;
- Locations of all receiving waters, including wetlands, in the immediate vicinity of the Terminal, indicating if any of the waters are listed as impaired and which are identified by the MassDEP or the EPA as Tier 2, Tier 2.5 or Tier 3 waters (Not applicable - see Section 4.10);
- Locations of all stormwater conveyances including ditches, pipes and swales;
- Locations of potential pollutant sources;
- Locations where significant spills and leaks of oil or toxic or hazardous substances that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the three years prior to the date this Plan was prepared or amended (also see Appendix C);
- Locations of all stormwater monitoring points;
- Locations of stormwater inlets and discharge points, with a unique identification code for each outfall (e.g., Outfall No. 1, No. 2, etc.), indicating if one or more outfalls are “substantially identical” under Parts 3.2.4.5, 4.1.1 and 5.2.5.3, of the current MSGP (not applicable to the Global Terminal) and an approximate outline of the areas draining to each outfall;
- Municipal separate storm sewer systems and where Terminal stormwater discharges to them (not applicable);
- Areas of Endangered Species Act-designated critical habitat for endangered or threatened species (not applicable); and

- Locations and descriptions of all non-stormwater discharges identified under Part 6.2.2.3.m of the current MSGP including locations of the following activities where such activities are exposed to precipitation:
 - fueling stations;
 - vehicle and equipment maintenance and/or cleaning areas;
 - loading/unloading areas;
 - locations used for the treatment, storage or disposal of wastes;
 - liquid storage tanks;
 - processing and storage areas;
 - immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material or by-products used or created by the facility;
 - transfer areas for substances in bulk;
 - machinery; and
 - locations and sources of run-on to the site from adjacent property that contains significant quantities of pollutants (not applicable).

Figure 1, Site Locus, illustrates the general location of the facility on a U.S. Geologic Survey topographic map.

Figure 2, Site Drainage Plan shows the Terminal's acreage, configuration, significant structures (buildings, tanks, secondary containments, pipelines, dock and other features), impervious surfaces, direction of stormwater flows at the Terminal, locations of stormwater control measures, location of the receiving waters (Chelsea Creek), location of stormwater drainage conveyances, locations of significant spills, location of the stormwater monitoring point (Outfall 003), stormwater inlets and discharge point (Outfall 003) and locations where Terminal activities such as fueling stations, loading/unloading areas, waste storage areas and storage tanks are exposed to precipitation.

Chelsea Creek is not identified as a Tier 2, Tier 2.5, or Tier 3 water. There are no "substantially identical" outfalls at the Terminal. The Terminal does not discharge stormwater to a municipal separate stormwater system. The entire Terminal drains through the Terminal's drainage system, which includes the retention ponds and the oil-water separator (OWS), to Outfall 003. There are no locations and sources of run-on to the Terminal from adjacent properties that contain significant quantities of pollutants. There are no designated critical habitat areas for endangered or threatened species.

3. Site Assessment and Planning

3.1 Summary of Significant Materials

Safety Data Sheets (SDSs) for Significant Materials stored or used on site are on file in the Terminal's Control Room. SDSs for bulk petroleum products stored at the Terminal are also available online at www.globalp.com. SDSs for additives are available through the VelocityEHS online SDS system that is available to terminal personnel.

Table 3-1 provides a list of Significant Materials which are stored, used or handled onsite.

Table 3-1. Chelsea Eastern Ave Terminal Storage

Tank	Product	Shell Capacity		Tank Type/Year	Failure /Cause3F ⁴
		Barrels	Gallons		
101	Distillates	96,387	4,048,257	Vertical Steel/1950	(a)
102	Distillates	94,807	3,981,894	Vertical Steel/1950	(a)
103	Empty	16,569	695,877	Vertical Steel/1950	(a)
104	Empty	1,964	82,500	Vertical Steel/1950	(a)
105	Gasoline/Naphtha	79,591	3,342,828	IFR ⁵ /Vertical/1950Steel/1950	(a)
106	Empty/ Formerly Distillates	53,942	2,265,583	Vertical Steel/1950	(a)
107	Gasoline/Denatured Ethanol	80,771	3,392,368	IFR/Vertical Steel/1950	(a)
108	Gasoline	53,966	2,266,578	IFR/Vertical Steel/1950	(a)
109	Gasoline	53,965	2,266,533	IFR/Vertical Steel/1950	(a)
110	Gasoline	53,779	2,258,725	IFR/Vertical Steel/1950	(a)
111	Distillates/Used Cooking Oil	53,764	2,258,106	Vertical Steel/1950	(a)
112	Gasoline	130,007	5,460,297	IFR/Vertical Steel/1950	(a)
113	Denatured Ethanol/Gasoline	131,006	5,502,264	IFR/Vertical Steel/1950	(a)
114	Distillates	53,405	2,243,005	Vertical Steel/1950	(a)
116	Empty/ Formerly Gasoline/Naphtha	96,040	4,033,702	IFR/Vertical Steel/1950	(a)
117	Distillates	153,659	6,453,698	Vertical Steel/1950	(a)
118	Gasoline	28,145	1,182,075	IFR/Vertical Steel/1950	(a)
119	Gasoline	28,219	1,185,209	IFR/Vertical Steel/1950	(a)
120	Diesel Additive, by Loading Rack	191	8,020	Horizontal Steel/1987 Single Wall	(a)
121	Gasoline Additive, by Loading Rack	238	9,986	Horizontal Steel/1990 Single Wall	(a)
122	Shell Additive, by Loading Rack	239	10,026	Horizontal Steel/1994 Single Wall	(a)
123	Diesel, Tank Truck Refueling	190.5	8,000	Horizontal Steel/2022 Double Wall	(b)
124	Red Dye, by Loading Rack Additive Tanks	71	3,007	Horizontal Steel/2005 Double Wall	(a)
125	Lubricity, by Pipeline to Dock	71	3,007	Horizontal Steel/2007 Double Wall	(a)

⁴ (a) – no failure known

⁵ IFR – Internal Floating Roof

⁶ (b) – Tank previously in service at Revere Terminal in 2022, Installed at Chelsea in 2024

Tank	Product	Shell Capacity		Tank Type/Year	Failure /Cause3F ⁴
		Barrels	Gallons		
126	Exxon Gas Additive	191	8,022	Horizontal Steel/2024 Double Wall	(a)
127	Exxon Diesel Additive	96	4,019	Horizontal Steel/2024 Double Wall	(a)
128	Sunoco Gas Additive	191	8,022	Horizontal Steel/2024 Double Wall	(a)
129	BP Gas Additive	48	2,005	Horizontal Steel/2024 Double Wall	(a)
DYE-2	Empty, Formerly Red Dye, by Loading Rack	6	250	Stainless Steel Tote/2019 Single Wall	(a)
N/A	Spill Recovery Tank (Tank 117 Dike)	235	9,852	Horizontal Steel/ Single Wall	(a)
LR-HO	No. 2 Fuel Oil, Locker Room	24	1,003	Horizontal Steel/1996 Double Wall	(a)
FH-1	No. 2 Fuel Oil, Foam House	7	275	Horizontal Steel/1980 Single Wall	(a)
FH-2	No. 2 Fuel Oil, Foam House	7	275	Horizontal Steel/1980 Single Wall	(a)
G-1	No. 2 Fuel Oil, Cumberland Farms Garage	7	275	Horizontal Steel/1980 Single Wall	(a)
G-2	No. 2 Fuel Oil, Cumberland Farms Garage	7	275	Horizontal Steel/1980 Single Wall	(a)
SL-1	Slop Tank – Mixture of Gasoline, Diesel and Fuel Oil	7	275	Horizontal Steel/1980 Single Wall	(a)
N/A	Mobile Proofer Tank	24	1,000	Steel	N/A
N/A	Ethanol Proofer Tank	2	100	Steel	N/A
N/A	Safety-Vac Trailer Tank	6	250	Steel	N/A
N/A	Red Dye, 4 Drums, Warehouse	5	220	Steel	N/A
N/A	Zink Fluid, 4 Drums, Warehouse	5	220	HDPV	N/A
N/A	Waste Oil Tank, Cumberland Farms	7	275	Steel	N/A
N/A	Motor Oil, 4 Drums Cumberland Farms Garage	5	220	Steel	N/A
Totals		1,261,340.5	52,976,310		

Notes

³ (a) – no failure known

⁴ IFR – Internal Floating Roof

⁵ (b) – Tank previously put in service at Revere Terminal in 2022, Moved to Chelsea in 2024. Original 5,000-gallon Tank 123 removed.

There are two electrical transformers located at the Terminal. The transformers are owned, operated and maintained by EverSource (formerly NSTAR). EverSource is responsible for the remediation of any spills associated with the transformers. One transformer is inside a locked cage adjacent to the Terminal's Main Entrance and the other is in a locked fenced-off area adjacent to the Contractor's Trailer behind the Warehouse. Each transformer contains approximately 150 gallons of transformer oil. Global does not have access to the locked areas.

The number of Red Dye and Glycol drums (whether containing dye or glycol or empty) will vary based on usage, resupply and disposal. The Terminal may also store drums (full or empty) of diesel additive in the Warehouse. Drums containing product are stored on spill pallets.

The Terminal also maintains two 1,900-gallon tanks of Alcohol Resistant Synthetic Film Forming Foam (AR-SFFF) in the Foam House for a total capacity of 3,800 gallons to be used for fire suppression in the Terminal's Tank Farm. There is a 900-gallon tank and a 300-gallon tote of AR-SFFF in the Maintenance Building/Locker Room to be used for fire suppression at the Terminal's Truck Loading Rack.

The City of Chelsea Fire Department maintains one (1) 275-gallon tote of Alcohol Resistant Aqueous Film Forming Foam AR-AFFF in the Cumberland Farms Garage at the Terminal. The number of drums will vary based on usage and resupply.

A variety of paint cans are stored in the Warehouses and Tire Room at the Terminal. The number of paint cans will vary based on usage and resupply.

3.2 Facility Activities Assessment

Global's Chelsea Eastern Ave Terminal receives distillates, gasoline, naphtha, denatured ethanol, butane, biofuel, used cooking oil, additives and other products via barge, tank vessel and/or tank truck. The Terminal distributes distillates and ethanol/gasoline blend through the truck loading rack. The Terminal has the capability of loading distillate products onto vessels at the marine dock but this is not a typical operation.

The Terminal currently has a total of forty-eight (52) aboveground storage containers with capacities of 55 gallons or more. The total combined shell capacity of the storage containers is 1,261,795 barrels (52,995,375 gallons).

Two (2) tanks (103 and 104) are inactive but may be put back into service in the future. The Terminal has six (6) distillate tanks (101, 102, 106, 111, 114 and 117), six (6) gasoline tanks (108, 109, 110, 112, 118 and 119), two (2) tanks that can contain either gasoline or naphtha (105 and 116), two (2) tanks that can contain either gasoline or denatured ethanol (107 and 113), one (1) own use diesel tank (123), nine (9) additive tanks (120, 121, 122, 124, 125, 126, 127, 128 & 129) and one empty red dye tank (DYE-2). There is one tank used to store oil/water that may be recovered from the Chelsea Creek in the event of a discharge to the water. There are five (5) Heating Oil tanks (LR-HO, FH-1, FH-2, G-1 and G-2), one (1) Slop Tank, one (1) Loading Rack Proofer Tank, one (1) Ethanol Proofer Tank, one (1) tank on the Safety-Vac Trailer and one (1) Waste Oil Tank. There may be four (4) Red Dye drums and four (4) Glycol drums on hand at the Terminal at any one time and the Cumberland Farms Garage may have four (4) drums of Motor Oil on hand. The number of drums on hand at any one time will vary based on usage and replacement. Cumberland Farms is responsible for the Waste Oil Tank and the Motor Oil Drums stored in the Cumberland Farms Garage.

The Terminal has an area in the small Warehouse where hazardous and non-hazardous waste drums may be stored. Universal Waste is also stored in the small Warehouse. The number of drums and containers will vary.

See Section 2.1 (above) for more information for Facility Description and Operations. Areas where the activities discussed above are located are shown on Figure 2 – Site Drainage Plan.

3.3 Existing Sampling Data

Sampling data from December 31, 2014 to November 30, 2021 can be found on the EPA's website. More recent monitoring data is kept on file in the Terminal Office. A copy of Parts 1 and 2 of the Terminal's Individual NPDES Permit can be found in Appendix A of this Plan. A copy of this Plan is kept in the Terminal Office.

Part I of the Permit is also accessible on the EPA's website at: [2022 Gulf Oil Limited Partnership Final Permit, MA0001091 \(epa.gov\)](https://www.epa.gov/2022-gulf-oil-limited-partnership-final-permit-ma0001091)

Sampling data can be found on the EPA's website at: [gulf-ma0001091-dmr-data.xlsx \(epa.gov\)](https://www.epa.gov/gulf-ma0001091-dmr-data.xlsx).

4. Description of Control Measures

4.1 Terminal Stormwater Drainage System

Stormwater discharges to Chelsea Creek through Outfall 003 are generated from runoff from paved areas which include the Terminal's Truck Loading Rack area, vehicle parking areas and the Tank Farm roadways; from the roofs of the Terminal Office Building, the Locker Room Building, the Cumberland Farms Garage and the warehouses and from stormwater that is discharged from the secondary containment dikes in the Terminal's Tank Farm. The discharge from Outfall 003 is regulated by the Terminal's NPDES Permit #MA0001091.

The secondary containment dikes are graded to direct the flow of stormwater to trenches that direct the flow toward the dike discharge valves. The Tank Farm drainage system discharge valves are located at the east corner of the Tank 101/102 dike, on the road outside the southwest corner of Tank 117 dike, in the Tank 105 dike at the southeast corner and in the Tank 118 dike west of the Tank. The valve in the Tank 118 dike controls the discharge of all the stormwater from the dikes west and south of the Tank Farm and Dock Roads. The dike discharge valves are kept closed and locked when they are not opened to allow discharge of stormwater from the dike. The stormwater in the dikes is inspected by Terminal personnel to ensure there is no visible sheen or other obvious signs of pollutants prior to discharge. The locations of the valves are shown on Figure 2 – Drainage Plan.

The Terminal has two lift stations associated with the Terminal Yard and Tank Farm drainage systems, each equipped with two, individually powered, float activated 800 gallons per minute (gpm) pumps and a third lift station associated with the marine dock drainage system.

Lift Station #1 is located adjacent to the roadway between Tanks 117 and 102. This lift station pumps the drainage from the truck Loading Rack area (during normal rain events) and the Tank 101/102 dike area to Lift Station #2. Lift Station #2 is located adjacent to the upper retention basin (aka the Small Pond). Lift Station #2 handles all drainage from the roads in the Tank Farm, drainage from the Tank 117 dike and the Tank Farm drainage that flows through the Tank 118 discharge valve. Lift Station #2 pumps the collected drainage to the upper retention basin.

The truck loading rack area (including vehicle parking areas and runoff from the roofs of the buildings in the area) is graded to direct stormwater into trench drains or catch basins (refer to Figure 2). Stormwater that enters the trench drains or catch basins flows via gravity to two, in series, OWS baffle tanks and then to Lift Station #1. During normal rain events, the flow from the loading rack and parking areas flows into Lift Station #1 and is then pumped to Lift Station #2. During heavy rain events, the flow from the loading rack and parking areas flows into Lift Station #1 and the valve for the flow from the Tank 101/102 dike field is closed. The water in Lift Station #1 is then pumped to the Tank 117 dike field. The Tank 117 dike discharges by gravity to Lift Station #2 which pumps the water to the retention ponds as described below.

The stormwater in the upper retention basin flows by gravity to the lower retention basin (aka the Big Pond) and then by gravity from the lower retention basin to the OWS before being discharged by gravity to the Chelsea Creek at Outfall 003. The 8,000-gallon capacity OWS has a maximum design flow rate of 800 gpm. The lower retention basin discharge valve is kept closed and locked when it is not opened to allow discharge of stormwater from the basin to the OWS. The lower basin discharge valve is not opened until the stormwater in the basin has been inspected by Terminal personnel to ensure there is no visible sheen or other obvious signs of pollutants.

The Marine Dock Manifold spill pan drains to a lift station that pumps drainage from the Dock Manifold Area to the Tank 117 dike by means of a float activated 60-gpm pump.

In the event of a failure of any lift station pump, the Terminal has portable pumps and hoses that may be used to pump stormwater through the drainage system.

The inspection and discharge of collected stormwater is documented using a stormwater discharge tracking log contained in Appendix I in the Facility Response Plan or a similar form. Stormwater drainage flow direction and the drainage system components are shown on Figure 2 – Site Drainage Plan.

4.2 Numeric Effluent Limitations Based on Effluent Limits in the Terminal's NPDES Permit

Stormwater discharge effluent limits that are applicable to the Terminal are found in Part I.A.1 of the Terminal's NPDES Permit #MA0001091 (Appendix A) and summarized on Table 4-1. Discharge sampling for several parameters is conducted in accordance with the Terminal's NPDES Permit as described in Section 4.4.2.7.

Table 4-1. Monthly, Semi-Monthly, and Quarterly Events, (x11) (except for April - see below)

Media	Parameter	Required ML	Permit Effluent Limits		# samples	Method	Bottle Type	Preservation	Hold Time
			Avg. Monthly	Max Daily					
<i>Effluent</i>	<i>pH</i>	-	6.5 to 8.5 S.U.		1				Field test
	Total Residual Chlorine	30 µg/L	-	30 µg/L (13 µg/L)*	1				Field test
	Total Suspended Solids [a]	-	30 mg/L	100 mg/L	1	SM 2540D	250 mL poly	none	7 days
	Turbidity [a]	-	report	report	1	SM 2130B			
	Oil & Grease	-	-	15 mg/L	1	EPA 1664	1L amber glass	H2SO4	28 days
	Chemical Oxygen Demand	-	-	report	1	SM 5220D	250mL poly	H2SO4	28 days
	Total Ammonia as N (May thru October)	-	-	1.8 mg/L	1	E350.1			
	Total Recoverable Copper	3 µg/L	-	5.8 µg/L	1	EPA 200.8	250ml poly	HNO3	6 months
	VOCs				1	EPA 624	40ml VOA vial x3	HCl	14 days
	Benzene	2 µg/L	-	5 µg/L					
	Methyl tert-butyl ether [b]	-	-	report					
	Group I PAHS + naphthalene				1	Method 625.1 (low level GC/MS)	1L amber glass x2	none	7 days
	naphthalene	5 µg/L	-	20 µg/L					
	benzo(a)pyrene	0.05 µg/L	0.05 µg/L (0.00013 µg/L)*	report					
	benzo(a)anthracene	0.05 µg/L	-	report					
	benzo(b)fluoranthene	0.05 µg/L	0.05 µg/L (0.0013 µg/L)*	report					
	benzo(k)fluoranthene	0.05 µg/L	0.05 µg/L (0.013 µg/L)*	report					
	chrysene	0.05 µg/L	-	report					
	dibenzo(a,h)anthracene	0.1 µg/L	-	report					

Media	Parameter	Required ML	Permit Effluent Limits		# samples	Method	Bottle Type	Preservation	Hold Time
			Avg. Monthly	Max Daily					
	indeno(1,2,3-cd)pyrene	0.1 µg/L	0.1 µg/L (0.0013 µg/L)*	report					
	Fecal coliform	-	-	report	1	SM 9221 (MPN)	120ml sterile poly	Na2S2O3	8 hours
	Enterococcus	-	-	report	1	EPA 1600	120ml sterile poly	Na2S2O3	8 hours

Notes:

[a] Total suspended solids and turbidity are to be sampled two times per month (semi-monthly) if at least two discharge events occur

[b] Methyl tert-butyl ether is to be analyzed for quarterly.

[c] Quarterly and annual samples will be collected at the same time as the monthly samples.

[d] Quarterly analysis should be done in the first month of the quarter if possible.

*The compliance level for parameters with numeric effluent limits less than the detection limit shall be non-detect at any sample ML above the numeric limit.

Annual - April (Monthly + Quarterly + Annual)														
Media	Parameter	Required ML	Permit Effluent Limits		# samples	Method	Bottle Type	Preservative	Hold Time					
			Avg. Monthly	Max Daily										
	<i>pH</i>	-	<i>6.5 to 8.5 S.U.</i>		1				<i>Field test</i>					
	Total Residual Chlorine	30 µg/L	-	30 µg/L (13 µg/L)*	1				Field test					
	Oil & Grease	-	-	15 mg/L	1	EPA 1664	1L amber glass	H ₂ SO ₄	28 days					
	<i>VOCs</i>													
	Benzene	2 µg/L	-	5 µg/L	1	EPA 624	40ml VOA vial x3	HCl	14 days					
	Toluene, ethylbenzene, xylenes	2 µg/L	-	report										
	Methyl tert-butyl ether	-	-	report										
	<i>Group I PAHS + naphthalene</i>													
	naphthalene	5 µg/L	-	20 µg/L	1	Method 625.1 (low level GC/MS)	1L amber glass x2	none	7 days					
	benzo(a)pyrene	0.05 µg/L	0.05 µg/L (0.00013 µg/L)*	report										
	benzo(a)anthracene	0.05 µg/L	-	report										
	benzo(b)fluoranthene	0.05 µg/L	0.05 µg/L (0.0013 µg/L)*	report										
	benzo(k)fluoranthene	0.05 µg/L	0.05 µg/L (0.013 µg/L)*	report										
Effluent	chrysene	0.05 µg/L	-	report										
	dibenzo(a,h)anthracene	0.1 µg/L	-	report										
	indeno(1,2,3-cd)pyrene	0.1 µg/L	0.1 µg/L (0.0013 µg/L)*	report										
	<i>Group II PAHS</i>													
	acenaphthene	5 µg/L	-	report										
	acenaphthylene	5 µg/L	-	report										
	anthracene	5 µg/L	-	report										
	benzo(g,h,i)perylene	5 µg/L	-	report										
	fluoranthene	5 µg/L	-	report										
	fluorene	5 µg/L	-	report										
	phenanthrene	5 µg/L	-	report										
	pyrene	5 µg/L	-	report										
	Fecal coliform	-	-	report	1	Colilert-18	120ml sterile poly	Na ₂ S ₂ O ₃	8 hours					
	Enterococcus	-	-	report	1	9230D Enterolert	120ml sterile poly	Na ₂ S ₂ O ₃	8 hours					
	Chemical Oxygen Demand	-	-	report	1	SM 5220D	250mL poly	H ₂ SO ₄	28 days					
	Total Ammonia as N	-	-	1.8 mg/L	1	E350.1								

Annual - April (Monthly + Quarterly + Annual)										
Media	Parameter	Required ML	Permit Effluent Limits		# samples	Method	Bottle Type	Preservative	Hold Time	
			Avg. Monthly	Max Daily						
Effluent	LC50	-	-	report	1	EPA-821-R-02-012	2.5 gal poly	none	36 hrs	
	Salinity	-	-	report	1	SM 2520B			28 days	
	Total Solids	-	-	report	1	SM 2540B	500mL poly	none	7 days	
	Turbidity	-	report	report	1	SM 2130B			7 days	
	Total Suspended Solids	-	30 mg/L	100 mg/L	1	SM 2540D			7 days	
	Total Organic Carbon	0.5 mg/L	-	report	1	SM 5310B	8oz amber glass	H3PO4	28 days	
	<i>Metals (Total Recoverable)</i>									
	Cadmium	0.5 µg/L	-	report	1	EPA 200.8	250ml poly	HNO3	6 months	
	Copper	3 µg/L	-	5.8 µg/L						
	Lead	0.5 µg/L	-	report						
	Nickel	5 µg/L	-	report						
	Zinc	5 µg/L	-	report						
	Creek	Benzene, toluene, ethylbenzene, xylenes	2 µg/L	n/a	n/a	1	EPA 624	40ml VOA vial x3	HCl	14 days
<i>PAHS (Group I & II)</i>										
benzo(a)pyrene		0.05 µg/L	n/a	n/a	1	Method 625.1 (low level GC/MS)	1L amber glass x2	none	7 days	
benzo(a)anthracene		0.05 µg/L	n/a	n/a						
benzo(b)fluoranthene		0.05 µg/L	n/a	n/a						
benzo(k)fluoranthene		0.05 µg/L	n/a	n/a						
chrysene		0.05 µg/L	n/a	n/a						
dibenzo(a,h)anthracene		0.1 µg/L	n/a	n/a						
indeno(1,2,3-cd)pyrene		0.1 µg/L	n/a	n/a						
naphthalene		5 µg/L	n/a	n/a						
acenaphthene		5 µg/L	n/a	n/a						
acenaphthylene		5 µg/L	n/a	n/a						
anthracene		5 µg/L	n/a	n/a						
benzo(g,h,i)perylene		5 µg/L	n/a	n/a						
fluoranthene		5 µg/L	n/a	n/a						
fluorene		5 µg/L	n/a	n/a						
phenanthrene		5 µg/L	n/a	n/a						
pyrene	5 µg/L	n/a	n/a							
<i>WET test</i>										
pH	-	n/a	n/a	1		Field test				

Annual - April (Monthly + Quarterly + Annual)										
Media	Parameter	Required ML	Permit Effluent Limits		# samples	Method	Bottle Type	Preservative	Hold Time	
			Avg. Monthly	Max Daily						
Creek	Temperature	-	n/a	n/a	1		Field test			
	Total Residual Chlorine	30 µg/L	n/a	n/a	1		Field test			
	LC50 (dilution water)	-	n/a	n/a	1	EPA-821-R-02-012	5 gal poly	none	36 hrs	
	Salinity	-	n/a	n/a	1	SM 2520B			28 days	
	Total Solids	-	n/a	n/a	1	SM 2540B	500mL poly	none	7 days	
	Total Suspended Solids	-	n/a	n/a	1	SM 2540D			7 days	
	Total Ammonia as N	-	n/a	n/a	1	E350.1	250ml poly	H2SO4	28 days	
	Total Organic Carbon	0.5 mg/L	n/a	n/a	1	SM 5310B	8oz amber glass	H3PO4	28 days	
	<i>Metals (Total Recoverable)</i>									
		Cadmium	0.5 µg/L	-	report	1	EPA 200.8	250ml poly	HNO3	6 months
		Copper	3 µg/L	-	5.8 µg/L					
		Lead	0.5 µg/L	-	report					
		Nickel	5 µg/L	-	report					
	Zinc	5 µg/L	-	report						

4.3 Unauthorized Non-Stormwater Discharges

4.3.1 NPDES Permit Part I.B.1

Part I.B of the Terminal's NPDES Permit authorizes the Terminal to discharge in accordance with the terms and conditions of the Permit and from the outfall identified in Part I.A.1 of the Permit. Discharges of wastewater from any other point sources which are not authorized by the Terminal's NPDES Permit or other NPDES permits will be reported in accordance with Part D.1.e.(1) of the Standard Conditions of the Permit (24-hour reporting).

4.3.2 NPDES Permit Part I.B.2

The Terminal is authorized to discharge only the effluent types listed in Part I.A.1 of its NPDES Permit with the exception of the following discharges allowable under Part 1.2.2.1 of the 2021 MSGP, provided these discharges meet all effluent limitations in the Permit:

- Discharges from emergency/unplanned fire-fighting activities;
- Fire hydrant flushings;
- Potable water, including uncontaminated water line flushings;
- Uncontaminated condensate from air conditioners, coolers/chillers, and other compressors and from the outside storage of refrigerated gases or liquids;
- Irrigation/landscape drainage, provided all pesticides, herbicides, and fertilizers have been applied in accordance with the approved labeling;
- Pavement wash waters, provided that detergents or hazardous cleaning products are not used (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols), and the wash waters do not come into contact with oil and grease deposits, sources of pollutants associated with industrial activities (see MSGP Part 6.2.3), or any other toxic or hazardous materials, unless residues are first cleaned up using dry clean-up methods (e.g., applying absorbent materials and sweeping, using hydrophobic mops/rags) and appropriate control measures have been implemented to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);
- External building/structure washdown / power wash water that does not use detergents or hazardous cleaning products (e.g., those containing bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols) and appropriate control measures have been implemented to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);
- Uncontaminated groundwater or spring water;
- Foundation or footing drains where flows are not contaminated with process materials;
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown; drains); and
- Any authorized non-stormwater discharge listed above or any stormwater discharge listed in MSGP Part 1.2.1 mixed with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

In accordance with Part I.B.1 of the Permit, the only authorized discharges from Outfall 003 are those identified in Part I.A.1 of the Permit. The following discharges are expressly prohibited:

- Discharge of tank bottom water and/or bilge water alone or in combination with stormwater discharge or other wastewater;

- Discharge of any sludge and/or bottom deposits from any storage tank(s), basin(s), and/or diked area(s) to the receiving waters. Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, OWSs, petroleum product storage tanks, baffled storage tanks collecting spills, and tank truck loading rack sumps;
- Discharge of liquid hazardous waste alone or in combination with stormwater or other wastewater;
- Discharges of runoff from any vehicle and equipment washing alone or in combination with stormwater or other wastewater, including from the leased property;
- Discharges of ballast water alone or in combination with stormwater or other wastewater;
- Runoff resulting from accidental spill or release, alone or in combination with stormwater or other wastewater;
- Discharges of emulsion chemicals, including surfactants (e.g., detergents and soaps) alone or in combination with stormwater or other wastewater;
- Discharges of contaminated groundwater, including, but not limited to wastewater generated during activities conducted under the Massachusetts Contingency Plan, alone or in combination with stormwater or other wastewater; and
- Discharges of aqueous film-forming foam and alcohol resistant synthetic fluorine free foam either in concentrate form or as foam diluted with water during testing or maintenance of the fire suppression system at the Facility's marine vessel dock.

Tank bottom water, sludge or bottom deposits from any storage tank or liquid hazardous waste will be removed by appropriately licensed contractors and disposed of at appropriately licensed disposal sites. The disposal records are maintained in the Terminal Manager's office.

The Terminal does not have a groundwater remediation system. If such a system is installed, the system will be designed so as to collect the wastewater which will then be disposed of and not discharged to Chelsea Creek, unless the Terminal applies for and obtains a separate NPDES Permit for such a discharge to Chelsea Creek.

If there is a spill involving an additive and the spilled additive entered the Terminal's drainage system, the lift station pumps would be shut down to prevent the spilled material from entering the retention ponds and the OWS. The drains would be cleaned. Any spilled additive that did not enter the drainage system would be cleaned up to prevent it from flowing into the drainage system.

The Terminal's fire suppression systems are tested using municipal (potable) water which the Terminal is allowed to discharge. Fire suppression foam is not used in testing the fire suppression systems. If the fire suppression foam system is activated at the Terminal's truck loading rack during testing, the lift station pumps would be shut down and the discharge valve from the Terminal's retention ponds would be closed so that the run-off would be contained in the Terminal's drainage system. In the event the foam system is activated for an actual fire suppression activity at a storage tank, the foam/water mixture would typically be contained in the tank impacted by the fire. If any of the foam monitors around the Tank Farm are used in fighting a fire at the Terminal, the drainage system valves would be closed and the foam/water mixture would be contained in the affected dike. The foam/water mixture in the impacted tank and/or dike would be removed and disposed of and not allowed to be discharged to Chelsea Creek.

The Terminal is not equipped with a bypass system for the stormwater drainage. All stormwater is processed through the retention ponds and the OWS.

In the event of an accidental oil spill at the Terminal, the spill would typically be cleaned up before it could impact the Terminal's drainage system. If the spill did enter the drainage system, the impacted water would be processed through the retention ponds and the Terminal's OWS. If there is a visible sheen or other obvious pollutants in either of the retention ponds, the water would not be allowed to flow to the OWS and the spilled material would be removed from the retention pond. If the spill is in a Tank Farm dike

area, it would be retained in the dike and cleaned up before the dike discharge valve is opened to release accumulated stormwater to the Terminal's drainage system.

4.4 Special Conditions (NPDES Permit Part I.C)

4.4.1 NPDES Permit Part I.C.1.a Best Management Practices

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

The Terminal has designed, installed and implemented control measures to minimize pollutants discharged from stormwater associated with the Facility operations to Chelsea Creek. The Terminal has implemented control measures, both structural controls (e.g., OWS, containment areas, holding tanks) and non-structural (e.g., operational procedures and operator training) consistent with those described in Part 2.1.2 and of EPA's MSGP. The control measures ensure the following non-numeric effluent limitations are met.

4.4.1.1 Minimize Exposure of Stored Material (NPDES Permit Part I.C.1.a.(1))

All bulk products are stored in enclosed tanks or containers compatible with the substance stored within. The tanks and containers are located inside a secondary containment system such as the Tank Farm dike system, the Terminal Yard drainage system or inside a building. The facility oil storage tanks are not designed, installed and/or operated (permanently manifolded) in such a manner that the multiple tanks function as one storage unit. Secondary containment for each tank is provided by an earthen dike, the facility drainage system including the OWS and retention ponds or concrete containments. The secondary containment system walls and floors are sufficiently impervious to contain oil. All storage areas are inspected at least once per shift by Terminal personnel.

All piping systems within the facility are designed and operated to minimize the chance of product release. Pipe supports are steel to steel construction to allow for equal expansion and contraction of the piping and support column. Supports are mounted on concrete bases with footing below the frost line to ensure structural support. Typically, pipe supports are made of steel for elevated lines and concrete for lines at grade. Expansion loops are incorporated into long pipe routings to allow for expansion and contraction of pipe. Pipe supports are typically designed to minimize abrasion and corrosion via installation of steel sliders welded to the bottoms of pipe. Bumper blocks, concrete islands or concrete filled pipes (bollards) are placed strategically around above ground piping that is exposed to vehicular traffic.

4.4.1.2 Minimize Exposure During Transfer of Bulk Materials (NPDES Permit Part I.C.1.a.(1))

Bulk product is received at the facility via barge or tank ship with direct loading from the Terminal's marine dock through the Terminal's pipeline system to the appropriate storage tanks within the Tank Farm secondary containment areas. Receipt operations from vessels to the Terminal's storage tanks are monitored by Terminal and vessel personnel. Terminal personnel inspect the pipeline route and gauge the tank(s) being filled every hour during the receipt operation. The bulk product storage tanks are equipped with high-level and high-high-level alarms to prevent overfilling during transfers. Triggering a high-level alarm activates an audio and visual alarm in the Dock House and in the Control Room in the Terminal Office Building and an audio alarm that can be heard throughout the Terminal. In the event the alarm is activated, transfer operations are immediately stopped. Transfer operations will not resume until the cause of the alarm is determined and addressed. The appropriate secondary containment dike discharge valves are kept closed and locked during receipt operations to contain the discharge of any product within the dike system should a spill occur.

Product is transferred from the Terminal's bulk storage tanks to tank trucks at the truck loading rack via the Terminal's piping system. The truck loading rack is equipped with a canopy to minimize exposure to precipitation. All piping is constructed of materials compatible with the substance handled within.

Drivers who bottom load must enter the amount of product they want to receive as part of the product transfer procedure before they can load. The flow of product will stop when the amount of product entered into the system is reached. Truck drivers are required to monitor and control truck loading and unloading. The tank truck driver inspects the drains and outlet connections to ensure proper closure of hatches, bottom valves and vapor openings both prior to and after loading operations to prevent potential discharges. If necessary, the valves are tightened, adjusted or replaced prior to continuing operations. The visual inspections are typically not documented. The vehicle is attended at all times by the driver during the transfer so that no leaks or discharges will go undetected should there be an equipment malfunction. After the transfer is complete, the vehicle will not be moved until all connections have been checked by the driver to be sure that they are undone and that there is no restraint on the truck that could possibly damage equipment and cause a leak.

The Terminal is equipped with *Scully's* Electronic Terminal Systems which provide Dynamic Self-Checking® overflow protection, as well as grounding verification for bottom loading tankers which load petroleum. These systems are capable of controlling fills and eliminating spills of tanker trucks with up to 8 compartments when equipped with two-wire sensors or 15 compartment tanks when equipped with five-wire sensors. All bottom loading trucks that load at the Terminal are equipped with either the two or five wire sensors. To prevent overloading, the driver must obtain a working Scully connection, needed for computer-controlled permission to load. Once permission is secured, the Scully system shuts down the loading process should product reach any of the compartment overflow sensors.

All bottom-loading tank trucks at the Terminal are equipped with a brake-interlock system. Drivers must raise a guard bar in order to access the tanker's loading connections. This activates the truck's braking system to prevent the vehicle from rolling during loading/unloading if the parking brake is not applied and from leaving before completely disconnecting from the fuel transfer lines. The guard bar cannot be lowered back into place until the loading connections have been disconnected. Signs warning drivers to completely disconnect from the fuel transfer lines are also posted in loading and unloading areas.

Drivers who top load must enter the amount of product they want to receive as part of the product transfer procedure before they can load. The flow of product will stop when the amount of product entered into the system is reached. Drivers who top load also visually witness the product rising in the truck from the open dome during transfer and can stop the flow at any time. The driver must manually hold open a spring-loaded handle on the loading arm to receive product. The product will stop flowing if the driver releases pressure on the handle. Drivers use wheel chocks to prevent top loading tank trucks from departing the loading area while loading/unloading.

Each truck loading bay is equipped with an emergency stop button that, when pushed, will shut down the transfer operations at all the loading bays. There is also an emergency stop button on the Terminal Office exterior wall and in the Terminal Office Control Room.

4.4.1.3 Housekeeping (NPDES Permit Part I.C.1.a.(2))

Good housekeeping BMPs are used to maintain a clean and orderly workplace to reduce the potential for accidental spills or releases of materials that could contaminate stormwater. Materials that are stored at the Terminal are stored in containers that are compatible with the products stored within.

The Terminal Yard, which includes the loading racks, truck re-fueling pump, slop tank and paved parking areas are kept clear of unnecessary equipment and debris. The Terminal is inspected daily by Terminal personnel to ensure that all areas are kept clean and orderly. Small spills (up to 10 gallons) anywhere at the Terminal are immediately cleaned up by Terminal personnel using any combination of absorbent pads, absorbent booms and/or granular absorbent material.

Housekeeping measures implemented at the Terminal are part of the control measures for waste, garbage and floatable debris. Any such debris that may be found at the Terminal is typically removed by Terminal personnel or caught in the drainage system covers before it can enter the drainage system. If waste, garbage or floatable debris is small enough to make its way into the drainage system, it would likely be contained within the baffle tanks, the retention ponds or the OWS before it could be discharged.

The trash dumpsters in the Terminal Yard are kept covered, bottom drains are plugged and the dumpsters are emptied regularly. If a dumpster is found to have any holes that may allow pollutants to enter the Terminal's drainage system, the vendor that provides the dumpster is contacted to replace it.

The Terminal Yard and other paved areas of the Terminal are swept twice a year in accordance with the Terminal's Individual NPDES Permit. The sweepings are typically done in the spring after the last snowfall and in the fall before the first freeze.

4.4.1.4 Maintenance (NPDES Permit Part I.C.1.a.(3))

The Terminal Manager is responsible for both the preventative and corrective maintenance of all on-site equipment and secondary containment systems. Tanks, pipes, valves, glands, drums or other equipment found to be leaking petroleum products or other hazardous substances will be promptly repaired, replaced or taken out of service following detection of the leak. All releases of petroleum product are cleaned up promptly by Terminal personnel or by contracted personnel in accordance with the Terminal's FRP.

All bulk petroleum and additive products are stored within storage tanks that are painted to inhibit corrosion. Maintenance and inspection of bulk product and additive tanks are performed in accordance with the American Petroleum Institute's Standard 653 or the Steel Tank Institute's SP001 Standard, as appropriate.

To help prevent leaks from forming in product piping installed prior to August 16, 2002 that crosses through a dike wall, the piping will be sleeved, wrapped or provided with cathodic protection or relocated above ground if it is unearthed.

All in-service above ground piping is painted to inhibit corrosion. Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction. Bumper blocks, concrete islands or concrete filled pipes (bollards) are placed strategically around all above ground piping that is exposed to vehicular traffic.

Any piping which exhibits signs of significant corrosion or structural fatigue is replaced with piping which meets or exceeds the industrial standards applicable to new pipe installations that are in place at the time of the replacement. Pipes removed from service are capped or blank flanged and marked as to origin or they are physically removed.

All equipment which exhibits signs of significant structural fatigue or deterioration will be promptly repaired, replaced or taken out of service until the situation is rectified. Any leaking substance will be contained and the source of the leak repaired as soon as practical after the leak is detected or the equipment will be taken out of service until the situation is rectified.

All storage areas or areas surrounding storage tanks/piping are maintained impermeable and in a manner which provides secondary containment and allows for unobstructed movement of personnel, fire protection or spill control equipment and/or decontamination equipment. All paved surfaces are maintained in good repair and free of cracks.

Secondary containment systems are maintained in good repair, free of accumulated debris and free of cracks through which hazardous substances could be discharged. Secondary containment systems are inspected by Terminal personnel on a monthly basis and prior to any planned stormwater discharge from these areas.

The Terminal's drainage system is inspected and cleaned periodically. Debris surfaces in catch basins are at least 6 inches below the lowest outlet pipe.

4.4.1.5 Spill Prevention and Response Procedures (NPDES Permit Part I.C.1.a.(4))

The Terminal complies with the Facility Response Plan and Spill Containment, Control and Countermeasure requirements of 40 CFR 112. Those requirements include the spill prevention and response procedures and practices that have been implemented at the Terminal, spill prediction, spill preparedness, spill detection, spill notification procedures and contact information, spill response

equipment inventory and inspection, spill response actions and employee training requirements. Secondary containment systems are utilized to contain any spill that may occur at the Terminal and prevent a spill from entering Chelsea Creek. The Terminal's drainage system, which includes the retention basins and the OWS, is described in Section 4.1 above.

The Terminal maintains a supply of hydrophobic, petroleum adsorbing pads and boom and absorbent granular materials on site to be able to respond to minor spills. The Boston Harbor Oil Spill Cooperative (BHOSC) maintains pre-deployed containment boom at the Terminal and at other strategic locations along Chelsea Creek and Boston Harbor. The Terminal has contracted with the BHOSC and an Oil Spill Removal Organization (OSRO) to respond to spills at the Terminal. The BHOSC will provide manpower and equipment to deploy containment boom in Chelsea Creek and Boston Harbor if necessary. The OSRO will, if necessary, be able to provide the manpower and equipment required to respond to a spill ranging in size from less than one (1) gallon up to the Terminal's EPA defined worst case discharge of 6,453,698 gallons both on land and on water for the duration of time required to clean up the spill.

The Terminal has identified the location and contact information for sensitive resources that are within the planning distance for the Terminal and the methods to be used to protect them from the effects of a spill at the Terminal. For non-persistent oil discharged into tidal waters the planning distance is 5 miles from the facility down current during ebb tide and to the point of maximum tidal influence or 5 miles, whichever is less, during flood tide (40 C.F.R. 112 Appendix C 4.2). The EPA provides a list of sensitive resources in 40 C.F.R. 112, Appendix F Part 1.4.2, to be considered in the evaluation of potential risk factors. This list includes schools, medical facilities, residential areas, wetlands, drinking water intakes, wildlife areas, marine and estuarine reserves and recreational areas and is intended to direct planning efforts toward the protection of important environmental and community resources.

4.4.1.6 Erosion and Sediment Controls (NPDES Permit Part I.C.1.a.(5))

The Terminal's ground surface area is comprised of a combination of concrete or asphalt pavement, and hard packed soils with gravel or clay. The Terminal Yard area is paved with asphalt. The truck loading rack area surface is concrete. The Tank Farm dikes have a clay interior surface with some areas enhanced with bentonite to improve impermeability. The Tank Farm roadways by Tank 117 and the warehouses and the Foam House Road are paved with asphalt. The Gate 5 roadway and the roadways adjacent to the marine dock are hard packed soils with gravel. The external walls of the Tank Farm dikes are covered with either gravel or vegetation to prevent erosion. The Terminal Operators perform daily and monthly inspections that include checks to detect any erosion issues that may arise.

The Terminal's Tank Farm drainage system includes gravel covered ditches that can trap sediment before it can be discharged from the dike area. The Terminal's retention ponds and OWS provide another means to control sediment by allowing the solids to settle out of the stormwater prior to discharge through the regulated Outfall 003. As required by the Terminal's NPDES Permit, the Terminal samples the Outfall 003 discharge for Total Suspended Solids (TSS) twice monthly and conducts visual monitoring of the discharge quarterly to ensure sediments are not being discharged to the receiving waters. The retention ponds and OWS are cleaned periodically to minimize the chance of sediment being discharged to Chelsea Creek.

Outfall 003 discharges to Chelsea Creek onto stones that minimize erosion and scour in the immediate vicinity of the discharge location.

4.4.1.7 Management of Stormwater (NPDES Permit Part I.C.1.a.(6))

All stormwater collected within the Terminal Tank Farm secondary containment dikes drains by gravity to the Terminal's drainage system. The dike walls prevent uncontrolled runoff of the stormwater to Chelsea Creek from the diked areas. The Terminal Yard is graded to direct stormwater to the Terminal's drainage system. An earthen berm at the east side of the Terminal Yard prevents untreated stormwater runoff from the Terminal Yard from entering Chelsea Creek. Roof drains on the buildings at the Terminal direct runoff to the Terminal's drainage system. Stormwater at the marine dock is collected in a drainage pit and directed to a lift station that pumps the drainage into the Tank 117 dike.

4.4.1.8 Salt Storage Piles (NPDES Permit Part I.C.1.a.(7))

The Terminal may purchase salt in bulk and store it in piles inside the Cumberland Farms Garage where it is not exposed to stormwater. Calcium chloride pellets used for de-icing the Terminal's Yard, roadways and walkways may be purchased in 50-pound bags and delivered on pallets. The calcium chloride is also stored inside the Cumberland Farms Garage and is not exposed to stormwater. The Terminal uses a spreader on the bed of a company pickup truck to distribute the salt and/or calcium chloride when necessary. The spreader is filled inside the Cumberland Farms Garage to prevent exposure to stormwater. Some of the bags of calcium chloride are emptied into plastic barrels equipped with covers for localized use on walkways and parking areas around the Terminal. These barrels are stored inside buildings or outdoors under canopies to prevent exposure to stormwater.

Residue from salt and calcium chloride that has been used for de-icing the Terminal Yard, roadways and walkways would enter the Terminal's drainage system. The Terminal's drainage system baffle tanks for the Terminal Yard would remove most of the residue from the discharge stream. The retention ponds would also assist in the removal of residue. Results of the TSS sampling described in Section 4.4.1.6 above would be an indicator of whether the discharge through Outfall 003 contains any residue.

4.4.1.9 Employee Training (NPDES Permit Part I.C.1.a.(8))

Terminal employees who work in areas where industrial activities or material handling activities are exposed to stormwater receive training upon hiring and annually thereafter. Those who are responsible for implementing activities necessary to comply with the Terminal's NPDES Permit receive training prior to undertaking those activities. These employees include all members of the Stormwater Pollution Prevention Team (the Terminal Manager and Supervisor) and all Terminal Operators.

The Terminal Manager, Supervisor and Operators receive training in the contents and requirements of this SWPPP, spill response procedures, good housekeeping, maintenance requirements, material management practices, the location of all controls required by the Terminal's NPDES Permit, the proper procedures to follow with respect to the Permit's pollution prevention procedures, when and how to conduct inspections, record applicable findings and take corrective actions and the Terminal's emergency procedures.

The employees receive annual training on the contents and requirements of the Terminal's FRP and SPCC Plan as well as OSHA 29 C.F.R. 1910.120 HazWoper training. The training may be conducted by Global's Environmental Health & Safety (EHS) Department personnel, the Terminal Manager or Supervisor, classroom training provided by an outside contractor and/or computer-based training. Training records are maintained by the Terminal Manager.

4.4.1.10 Non-Stormwater Discharge Evaluation (NPDES Permit Part I.C.1.a.(9))

The Terminal has evaluated its drainage system and found no cross connections between the stormwater drainage system and sanitary sewer lines. The Terminal has inspected the stormwater drainage system to ensure there is no groundwater infiltration that would create an illicit discharge. The Terminal personnel conduct daily, weekly, monthly, quarterly and annual inspections to prevent non-stormwater discharges from occurring. Should a release be detected, Terminal personnel would be able to close the appropriate valves to prevent the release from being discharged to the Chelsea Creek.

4.4.1.11 Dust Generation and Vehicle Tracking of Industrial Materials (NPDES Permit Part I.C.1.a.(10))

The Terminal Yard area and Tank Farm roadways, where most vehicle activity occurs, are paved thereby minimizing dust generation. The Terminal's Tank Farm interior dike surfaces are clay and gravel which also minimizes dust generation. If a discharge occurred at the truck loading rack, any vehicle that may be impacted by the leak would be cleaned prior to allowing it to depart from the Terminal.

4.4.1.12 Illicit Discharges (NPDES Permit Part I.C.1.a.(11))

There are no cross connections between the Terminal's stormwater drainage system and sanitary sewers. If an illicit discharge is detected, the Terminal will locate, identify and eliminate the illicit discharge as expeditiously as possible.

4.4.1.13 Rodents, Birds and Other Animals (NPDES Permit Part I.C.1.a.(12))

The Terminal will use known, available and reasonable methods to prevent rodents, birds or other animals that may be found to be feeding/nesting/roosting at the Terminal. These methods will not include any that would be construed as a violation of any applicable federal, state or local statutes, ordinances or regulations, including the Migratory Bird Act.

4.4.1.14 Practices to Minimize Bacteria (NPDES Permit Part I.C.1.a.(13))

In addition to using known, available and reasonable methods to prevent rodents, birds and other animals from feeding/nesting/roosting at the Terminal, the Terminal will ensure that all food waste will be properly disposed of in sealed trash bags and that the covers on the waste dumpsters at the Terminal are closed and the drains are plugged to prevent rodents and other wildlife from accessing the dumpsters and possibly spreading waste that may promote the growth of bacteria.

4.4.2 NPDES Permit Part I.C.1.b Additional Best Management Practices

The Terminal will or has designed, installed and/or implemented the following BMPs.

4.4.2.1 MSGP Parts 3.1, 3.2, 5.1 & 5.3

The Terminal will comply with the inspection requirements in Parts 3.1 and 3.2 of the 2021 MSGP (see Section 5.0), the corrective action requirements in Part 5.1 of the 2021 MSGP and the corrective action documentation requirements in Part 5.3 of the 2021 MSGP (see Section 4.11). If any of the following conditions occur or are detected during an inspection, monitoring or by other means, the Terminal will review and revise this Plan, as appropriate, so that the Permit's effluent limits are met and pollutant discharges are minimized:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non- stormwater not authorized by this or another NPDES permit);
- A discharge violates a numeric effluent limit listed in Part I.A of the Permit (see Section 4.4.2.7 of this Plan);
- The stormwater control measures are not stringent enough to control stormwater discharges as necessary such that the receiving water will meet applicable water quality standards and/or the non-numeric limits in Part I.C of the Permit;
- A required control measure was never installed, was installed incorrectly, or is not being properly operated or maintained; and
- Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).

4.4.2.2 MSGP Parts 2.1 & 2.1.1

The Terminal will comply with the control measure requirements in Part 2.1 and 2.1.1 of the 2021 MSGP in order to identify pollutant sources (stormwater runoff, petroleum products) and select, design, install and maintain the pollution control technology (secondary containment dikes, retention basins, OWS) necessary to meet the effluent limitations in the Permit that ensure dilution is not used as a form of treatment as described elsewhere in this Plan.

4.4.2.3 Discharge During Worst-Case Conditions

The Terminal will minimize, to the maximum extent practicable, discharging stormwater and hydrostatic test water during worst-case conditions (i.e., approximately one hour before and after slack tide and

during periods of lowest receiving water flow) The Terminal will, to the maximum extent practicable, discharge stormwater and hydrostatic test water on an outgoing tide. In the event that a discharge outside of the parameters described here cannot be avoided, the Terminal will document the discharge and the reason for the discharge as a supplement to Appendix C to the SWPPP as shown below.

Date/Time of Discharge

Reason for Discharge

4.4.2.4 Discharge Flow Control

The flow through the stormwater treatment system's OWS discharge is a combination of gravity and pumped flow. Stormwater is pumped to the retention basin from the lift stations and flows from the retention basins to the OWS by gravity. There is a flow meter on the OWS discharge line. Storage is available in the containment areas so the lift station discharge can be controlled to ensure that the 800-gpm maximum design flow of the OWS is not exceeded.

4.4.2.5 Response Procedures for Ethanol and Materials Used for Spill Response & Fire Control

The Terminal has designed and implemented response procedures for ethanol and materials that are used for spill response and fire control (e.g., aqueous film-forming foam). This includes specific provisions for the treatment of ethanol and/or pollutants in materials that are used for spill and fire control, should release occur.

The Terminal receives and stores ethanol denatured with gasoline. The denatured ethanol is blended with gasoline at the truck loading rack dispensers as the product is loaded into the customer's trailer. Ethanol is totally miscible in water and would not be able to be recovered from water if a spill to water occurs. Water impacted by ethanol may be flammable. With the deoxygenating properties of ethanol, large fish kills have been reported in locations that are separated from the incident scene by great distances. The threat of deoxygenating from a large volume ethanol release may require the inclusion of oxygen-generation systems to minimize the impact on the local marine life. Responders should be aware of the mixing agents or additional chemicals that may be present in the water after the ethanol mixes with water. The majority of these agents (such as gasoline) will remain on the surface of the water allowing for the successful perimeter use of booms for containment and targeted mitigation. Denatured ethanol may tend to penetrate porous surfaces, requiring more extensive cleanup activities if they impact a shore area.

Denatured ethanol may be stored in either Tank 107 or Tank 113 in the Terminal's Tank Farm. In the event of a spill in the Tank Farm, Terminal personnel will verify that the dike's stormwater drainage valve is closed to ensure the spilled product does not enter the Terminal's drainage system. Any ignition source should be eliminated. If the spill occurred while the dike drainage valve was open to allow stormwater to drain from the dike, the valve would be closed, Lift Station #2 pumps would be shut down and the OWS discharge valve would be closed to ensure the denatured ethanol would not be discharged to Chelsea Creek. Vapor-suppressing foam can be used to reduce vapors. The required repairs would be made, impacted soil would be removed and disposed of and drainage lines, retention ponds and the OWS would be drained and cleaned to remove traces of the ethanol that would have mixed with the stormwater in the drainage system and the residue disposed of by properly licensed contractors

As discussed above, the denatured ethanol is mixed with gasoline at the truck loading rack. The result is a mixture of approximately 90% gasoline and 10% ethanol. Therefore, all spills of gasoline that result from a failure of equipment or human error after the products have been mixed at the loading rack will involve an ethanol component. If a spill does occur at the truck loading rack, Lift Stations #1 and #2 pumps will be shut down. Any ignition source should be eliminated. Dry earth, sand or other non-combustible material can be used to construct a berm to prevent material that has not reached the loading rack drainage system from flowing into the drainage system and to absorb or cover the material. Vapor-suppressing foam may be required to reduce vapors. Clean, non-sparking tools will be used to collect absorbed material. The Terminal's drainage system will be cleaned, as necessary, and the residue along with any disposable equipment (protective clothing, gloves, boots, absorbent materials, drums, etc.) will be

disposed of by properly licensed contractors at a properly licensed disposal site permitted to accept such waste materials.

The Terminal utilizes Thunderstorm Foam's WNF33A 3%x3% Non-Fluorinated Foam Concentrate (NFFC) Alcohol-Resistant Synthetic Fluorine Free Foam (AR-SFFF) in its fire suppression system. AR-SFFF is used in fighting fires that may involve hydrocarbons, polar solvents (water miscible) and many oxygenated fuel blends. The Terminal does not use its AR-SFFF for testing or fire suppression purposes. Should an accidental release of the AR-SFFF occur, the lift station pumps would be shut down and the discharge valves for the retention ponds and the OWS would be closed to prevent the foam from entering the water. Surfaces impacted by the accidental release and the Terminal's drainage system will be cleaned, as necessary. The residue along with any disposable equipment (protective clothing, gloves, boots, absorbent materials, drums, etc.) will be disposed of by properly licensed contractors at a properly licensed disposal site permitted to accept such waste materials.

Discharges from emergency/unplanned fire-fighting activities are permitted. Should such an event occur, the containment and cleanup methods used for accidental releases would be followed if it is safe to do so. Also see Section 4.3.2 of this Plan for more information on Tank Farm fires.

Disposable materials that are used for spill response include but are not limited to, protective clothing, gloves, boots, granular absorbents, hydrophobic spill pads, sausage booms and drums. All disposable response equipment used for any spill at the Terminal will be collected and disposed of by properly licensed contractors at a properly licensed disposal site permitted to accept such waste materials. All reusable spill response equipment may be decontaminated and stored for future use.

4.4.2.6 Prevention of Discharges From Major Storm and Flood Event BMPs

This Section of the SWPPP has been prepared by Global and AECOM to identify BMPs and structural improvements in place and/or necessary to prevent discharges of oil and/or hazardous material (OHM) to stormwater as a result of major storm or flood events, under both current climate conditions, future sea level rise projections and extreme weather events (e.g. rain events, hurricanes, etc.).

In addition to the SWPPP Team, Global retained AECOM and Tighe&Bond Inc. (Tighe&Bond) to assist with review of potential major storm and flooding impacts at the Facility. A survey of building elevations was conducted by Chappell Engineering Associates, LLC in 2018 and a topographic survey was conducted by Vanasse Hangen Brustlin Inc. (VHB) in 2022. These surveys provided Global with elevational data of the Facility and features necessary to evaluate current Facility improvements in relation to potential storm and flood elevations. AECOM and Tighe&Bond researched federal, state and local records to provide Global with base flood elevational data, sea level rise projections and 24-hour/25-year rainfall values necessary to evaluate impacts of storms and flooding at the Facility. This information has been incorporated into the below analysis.

This Section is organized as follows:

- Historic observations of major storm events and flooding at the Facility during previous permit periods (Section 4.4.2.6.1);
- Identification of BMPs in place to prevent discharges of OHM as a result of current Permit period storm and flood events (Section 4.4.2.6.2); and
- Discussion of potential future major storm and flood projections and BMPs (Section 4.4.2.6.3).

4.4.2.6.1 Historic Observations of Flooding and High Precipitation Events During Previous Permit Periods

The magnitude of flooding events at the Facility during previous permit periods have been minimal. Below is a summary of observations:

- There have been no releases of OHM as a result of flooding or precipitation events;
- There have been no releases of OHM as a result of hurricanes;

- Bulk tank containments, additive ASTs, the OWS unit, the hazardous waste storage building and buildings have not been impacted by flooding. There have been no releases of OHM in the Terminal Yard area (includes the loading rack) as a result of flooding or precipitation events.
- There have been no releases of OHM at the Global Terminal dock from flooding or significant precipitation events. The dock platform during maximum Chelsea River flooding/tidal ranges has experienced minor flooding with no exposure of OHM to stormwater.
- There has been no damage to critical infrastructure.
- Any flooding that has historically occurred on site has been outside of containment areas, and typically confined to the loading rack/parking lot area and at the area north of Tank 118. This intermittent flooding typically occurs when rainfall rates exceed the capacity of the onsite stormwater drainage system.

4.4.2.6.2 BMPs in Place to Prevent Discharges of OHM from Current Permit Period Storms and Flood Events

4.4.2.6.2.1 Derivation of Resiliency Planning Elevation For the Current Permit Period

For flood resiliency planning at the Facility for the current NPDES permit in effect until December 2027, Global has identified an elevation of 11.1 feet relative to the National North American Vertical Datum (NAVD) of 1988 (this elevation is hereafter referred to as the Resiliency Planning Elevation or RPE). This elevation was derived from the base flood elevation (BFE) for the area of 10 feet, a worst-case sea level rise during the Permit Period of 0.6 feet and a maximum precipitation event of 0.5 feet. Note that an RPE of 11.1 feet is conservative as it assumes the maximum rain event occurs all at once at the same time of the maximum flood elevation. The basis for the selection of these values is presented below.

- Base Flood Elevation (BFE): The Federal Emergency Management Agency (FEMA) has identified an elevation of 10 feet for a flood having a 1% chance of occurring during any given year (i.e. the 100-Year Flood). Consistent with the Individual Permit (P. 31, n. 6), Global used FEMA's 100-year flood as the BFE⁶.
- Mean Higher High Water (MHHW): The National Oceanic and Atmospheric Administration (NOAA) provides data on Tides and Currents⁷ for locations proximal to the Facility. The nearest stations to the Facility are located in Chelsea, Massachusetts (Station 8443725) and Boston, Massachusetts (Station 8443970). The Mean Higher High Water (MHHW) value posted for these stations are 10.35 feet and 10.28 feet, respectively, or approximately 5.2 feet when adjusted to the NAVD88 datum. Note that the MHHW is defined as the average of the higher high-water height of each tidal day over the National Tidal Datum Epoch (NTDE), a 19-year period adopted by NOAA. The MHHW value is less than the FEMA BFE so is not used to derive the Facility RFE but gives insight into typical Chelsea River high tide elevations.
- Worst-Case Sea Level Rise: The U.S. Global Change Research Program (USGRP) Chapter 18, Northeast, identifies a general past sea level rise of 0.12 feet/year⁸. The report does not provide future sea level rise on a the time scale of the Permit, but indicates it likely will be higher than the past 0.12 inches per year rate. The Massachusetts Coastal Zone Management (CZM) Sea Level Rise Guidance identifies a conservative (highest) sea level rise of 0.49 feet in Boston by 2025 and 1.08 feet by 2038. By extrapolation, the predicted sea level rise is 0.6 feet by 2027⁹.
- Precipitation Events: NOAA's precipitation frequency estimates for Massachusetts (Logan Airport) list a value of 6.12 inches (0.5 feet) for a 24-hour-long event that has a 4% chance of occurring during any given year (i.e., the 24-hr/25-year rainfall event). With a concern of future rainfall events being the rate and intensity of precipitation events as much as the total storm volume, Global's

⁶ <https://www.fema.gov/flood-insurance>; <https://www.fema.gov/portal/home5>

⁷ <https://tidesandcurrents.noaa.gov/datums.html?id=8443725>

⁸ <https://nca2018.globalchange.gov/chapter/18/>

⁹ <https://www.mass.gov/files/documents/2016/08/vp/slr-guidance-2013.pdf>

development of a RPE conservatively assumes all of this precipitation falls at one time with no percentage removed by the OWS systems.

In addition, as a condition of the NPDES permit, the RPE will be reviewed and BMPs updated (if necessary) on a rolling annual basis¹⁰. Updates will be based on conditions observed during the previous permit year and any updates to the forward looking 25-to-100-year future time interval.

4.4.2.6.2.2 Major Storm and Flood Resiliency BMPs

The different sources of potential OHM releases at the Facility during a major storm and/or flood event are discussed separately below. Where necessary, the discussions include BMPs that are in place to prevent discharges. Note BMPs for hurricane events are discussed as a separate topic later in this Section.

Tank Farm ASTs:

- The large bulk storage ASTs located in the tank farm are protected from flooding by earthen dike systems that are higher in elevation than the RPE;
- BMPs for these areas consist of:
 - Discharging standing water in containment structures routinely and before any major rain event;
 - Closing the dike drain valves prior to a major storm to prioritize drainage of other areas, if necessary;
 - Consideration towards removing manways from empty/cleaned ASTs prior to any major storm events. Removing the manways allows any accumulated water to enter the AST, eliminating the potential of floatation; and
 - Periodic surveys of earthen dikes to ensure elevations have not changed (no less frequent than once every 10 years).
- The bulk ASTs are not at risk of floatation from precipitation events alone due to an insufficient volume (height) of water in the dike areas from these events to cause the tanks to be buoyant.

Additive and Own-Use Fuel Oil ASTs:

- Additive and own-use fuel oil ASTs are located in the Terminal Yard;
- Global has strapped down all additive tanks at the Eastern Avenue site to prevent floatation;
- Based on topographic survey, the approximate ground elevations at the additive tanks are below the RPE. Global will evaluate conducting a survey of the ground elevations at the base of the additive tanks and/or using field measurements combined with existing topographic data to obtain more-specific elevational data.
- These ASTs are not at risk of floatation from precipitation events alone.

Loading Rack:

- The loading rack elevation is 3.1 feet below the RPE.
- BMPs for this area consist of:
 - Inspect the Loading Rack area prior to forecasted major storms. Comply with the General Facility BMPs and Equipment Fueling and Fuel Storage BMPs (Section 4.4.2) discussed previously;

¹⁰ The rolling annual basis is interpreted to be annually on the anniversary of the date of the initial SWPPP submittal under the current NPDES permit.

- Discontinue loading operations when any flooding of the Terminal Yard begins to occur, or earlier if forecasted conditions warrant it; and
- Notifying customers not to send trucks or vessels to the Facility until they receive confirmation that flooding has abated, as appropriate.

Terminal Dock:

- The Terminal dock elevation is approximately 3.1 feet below the RPE. The dock does not contain equipment at risk of floatation and is structurally designed to withstand flooding.
- BMPs for this area consist of:
 - Inspect the dock area prior to forecasted major storms. Comply with the General Facility BMPs and Equipment Fueling and Fuel Storage BMPs (Section 4.4.2);
 - Secure hoses that are stored on hose towers and docks with second lines; and
 - Follow the BMPs related to deliveries discussed further below.

Above-Grade Product Piping:

- Above-grade product piping is utilized to connect the dock to the Tank Farm ASTs, and the Tank Farm ASTs to the Loading Rack.
- The existing product piping network from the dock to the Tank Farm ASTs currently sits approximately 1 ft above grade. New product piping is scheduled to be installed in 2025 and will sit approximately 4 ft above grade. Global will evaluate the elevation of this piping compared to the RPE after construction is complete.
- The product piping network for the rest of the facility sits 2 to 3 ft above ground level. Most of this piping is within the Tank Farm and is protected by the earthen dike systems that are higher in elevation than the RPE.
- Piping is 8-12 inches in diameter, constructed of steel and positioned above grade on steel supports or secured to the dock.
- BMPs for product piping are limited to the previously discussed facility BMPs related to routine and frequent inspections to confirm that no leaking from the product piping is occurring.

OWS Unit:

- The OWS is housed below grade. The only inflow to the OWS is from the Lower Basin. The berm surrounding the Lower Basin is set above the RPE and outflow from the basin is controlled by a valve. The lower basin discharge valve is not opened until the stormwater in the basin has been inspected by Terminal personnel to ensure there is no visible sheen or other obvious signs of pollutants.
- BMPs consist of inspecting and removing any accumulated oil 48 hours prior to any major forecasting event that could lead to Terminal Yard flooding. Oil accumulation in the OWS units historically has been rare to non-existent. But if found as part of this BMP, it will be removed by a contractor prior to the flooding event.

Facility Buildings:

- Threshold elevations of all buildings at the Eastern Ave site are approximately 1.0-3.3 feet below the RPE;
- BMPs for these areas consist of:
 - Assessment of potential pollutant exposure in buildings to stormwater at RPE elevations; and

- Where an exposure is present, elimination of the potential exposure (e.g. permanent and/or temporary measures to eliminate flooding of the building(s), relocation of stored materials to locations above RPE, etc.).
- Facility buildings are not at risk of floatation from precipitation events alone.

Generators and Electrical Equipment:

- There are two electrical transformers located at the Terminal that are below the RPE. The transformers are owned and operated by EverSource and Global does not have access to them.
- Three emergency generators are currently being installed and are scheduled to begin operation in 2025. There will be one emergency generator near the terminal entrance, and two other emergency generators adjacent to the warehouse building north of Tanks 118 and 119.
 - The approximate ground elevation near the terminal entrance and the area north of Tanks 118 and 119 are 8 ft and 7.5 feet, respectively. The generators at each of the three locations sit atop concrete pads approximately 31 inches above the surrounding ground elevation. In addition, the bottom 2 feet of the generators consists of a water-tight diesel fuel storage tank that is maintained at a full level. The electrical equipment at each location will be above the RPE.

Hazardous Waste Storage Areas:

- Hazardous waste storage at the facility is located in a warehouse just north of the Terminal Dock. Drums are placed on pallets to contain possible leaks. The ground surface outside the building is approximately 7-8 feet. The building floor is approximately 2-3 feet higher than the surrounding ground level.
- In the event of a predicted flood of a magnitude to extend to this area, it is anticipated that there will be adequate time available to contact a contractor to remove any drums. If there is not adequate time, the drums can be moved by Global personnel and equipment to within the Tank Farm dike areas.
- Global will additionally evaluate the feasibility of elevating or relocating the storage area.

Deliveries:

- Deliveries of OHM to the facility primarily consist of additive deliveries by truck and barge/ship deliveries of petroleum products to the dock. Below are several BMPs related to these deliveries during major storm and/or precipitation events:
 - When an additive delivery of OHM is expected by truck, or other hazardous materials are scheduled to the warehouse, and a major storm is anticipated within 48 hours that has the risk of flooding transfer areas, the delivery will be delayed to the extent feasible until after the storm. Transfers will not take place during a major storm event.
 - Similarly, when the delivery is scheduled by barge or ship, transfers will not be initiated if review of predicted water elevations during the period of transfer indicate flooding of the dock structure is possible.
 - Global routinely monitors weather patterns, and in particular river levels, as part of its coordination of material deliveries (i.e., petroleum ships/barges). Transfers will be delayed as necessary.

Hurricanes:

The Facility has not been subject to a hurricane during Global or previous owners' operation and has a very low probability of experiencing a hurricane during the current Permit period. In the unlikely event a hurricane were to affect the Facility, the OHM storage and infrastructure is structurally capable of withstanding hurricane-related winds, with risk and prevention focused on hurricane-related storm surge flooding.

Global has developed the following BMP for hurricane preparation to minimize the potential impact to the Facility from a hurricane. These BMPs are in addition to applicable BMPs described in Section 4.4.2 of this SWPPP.

- Two days prior to hurricane arrival:
 - Start securing loose items (including fire extinguishers, barrels, signs and covers);
 - Empty and secure drip receptacles and buckets;
 - Check OWS units for oil, remove if present and close and secure covers;
 - Open man-ways on tanks that are empty (note: Global policy is that ASTs are cleaned if left temporarily out of service);
 - Secure AST vents;
 - If product levels are below elevations necessary to prevent floatation in bulk storage tanks, consolidate product in ASTs to obtain calculated levels (Global is in the process of conducting buoyancy calculations to determine product levels to prevent floatation under storm surge elevations associated with hurricanes. In the interim, a conservative product level will be used, derived from the projected flood elevation plus an additional two feet, adjusted for specific gravity of the stored fuel);
 - Close and secure dumpsters;
 - Check emergency generators and supply of batteries and flashlights;
 - Check portable pumps and fuel;
 - On ASTs with weather dome roofs, doors are to be closed and secured;
 - Have any hazardous waste containers (typically 55-gallon drums) picked up by a hazardous waste transporter;
 - Confirm all hazardous waste containers are securely closed. Replace any quick access covers with a secure lid. Excess empty drums will be secured or removed; and
 - Contact OSRO and USCG in your area for cell telephone # s.
- One day prior to hurricane arrival:
 - Close valves on ASTs and lines not necessary for truck loading;
 - Secure hoses that are stored on hose towers and docks with second lines;
 - Check loading rack valves at tanks for proper operation;
 - Start preparing to secure loading arms at truck rack;
 - Fuel up terminal trucks;
 - Charge cell phones and spare batteries; and
 - Close individual dike drainage valves.
- Within 8 hours of arrival:
 - Tie down all loading arms after each use at the Truck rack;
 - Check valves for proper alignment;
 - Secure secondary buildings; and
 - Conduct a facility Inspection.
- Post Hurricane:

- The Terminal Manager will assess the situation to determine the best approach to follow in returning to normal operations.

Miscellaneous Additional BMPs:

Below is a list of additional BMPs to be implemented at the Facility to prevent the release of OHM during major storm and flood events:

- Facility vehicles and equipment maintained at the Facility are limited primarily to several pick-up trucks and light constructional or industrial equipment present as part of ongoing third-party projects (e.g. backhoe, lift, etc.). As a BMP, this equipment will be relocated to elevations above RPE to the extent feasible prior to any flooding of the Facility. This equipment may be used in emergency response or to implement other BMPs in preparation for the major storm event or flooding.
- Material storage structures (such as the warehouses, electrical houses and foam houses) are constructed upon concrete foundations that are anticipated to withstand flooding and additional exertion of force.
- To the extent practicable, semi-stationary structures (such job trailers or Conex boxes) will be elevated or moved to a higher-elevation, above the RPE. If the semi-stationary structure cannot be moved to a higher-elevation structure, they will be secured to a stationary structure with a noncorrosive device.
- Facility personnel will inspect all outdoor areas for identification of items that could impact stormwater quality. Identified equipment or potential pollutant sources will be temporarily relocated to higher elevation areas. If portable toilets are on site, they will be serviced and relocated inside a building if possible.
- Global's existing emergency response plans include procedures that have been developed for weather-related emergencies. In addition, annual table-top exercises of response plans include stormwater related aspects to spill response discussions.

4.4.2.6.3 Potential Future Major Storm and Flood Projections and BMPs

In accordance with footnote 4 of NPDES permit condition C.1.b(6), this evaluation is to consider “the 25 to 100 years forward-looking from the review year to assess impacts that are likely to occur.” Global presents the following information in response to this requirement.

4.4.2.6.3.1 2020 Mystic River Exercise

In October 2020, the previous facility owner (Gulf) participated in the Mystic River Watershed Area Exercise hosted by the Resilient Mystic Collaborative (RMC). The exercise was designed around a 2050 1% annual exceedance probability nor'easter storm (i.e., 2050, 100-year storm). It was concluded from the exercise that the diking system present in the terminal would sufficiently protect oil storage assets.

Global was not the owner at the time of this exercise and is in the process of requesting the Exercise results pertaining to the Eastern Avenue site.

4.4.2.6.3.2 Future Sea Level Rise Projections

Sea level rise projections for the current permit period and associated sources were discussed in Section 4.4.2.6.2.1 of this SWPPP. Below are the projected sea level rise projections from the same sources for the 2025-2100 period:

- The Massachusetts CZM Sea Level Rise Guidance identifies the following conservative (highest) sea level rise projections for Boston:
 - 2050: 1.81 feet
 - 2075: 3.92 feet

- 2100: 6.83 feet
- USGRP Chapter 18, Northeast, identifies the following predictions on sea level rise for the Northeast:
 - Projections estimate a global average of 0.12 feet/year which equates to 3 feet by the year 2048 (25 years) and 9 feet in the year 2098 (75 years).
 - The study also provides year 2100 estimates of 2 feet (intermediate-low scenario), 4.5 feet (intermediate) and a worst case/lowest probability scenario of 11 feet.

At this time, no structural changes related to long-term sea level rise projections are necessary at the Facility given the overall low year to year increases and the existing BMPs in place. However, these values will be reviewed during the annual update of the SWPPP resiliency measures to see if BMP updates or structural improvements become necessary.

4.4.2.6.3.3 *Future Changes in Precipitation and Stormwater Management*

Since the issuance of the current NPDES permit, the previous Terminal owner (Gulf Oil LP) had a site-wide topographic survey of the Facility conducted which was used to assist with the evaluation conducted in Section 4.4.2.6 of this SWPPP. While changes in precipitation patterns during the five-year period of the current permit are not anticipated to be significantly different, Global plans to use the survey data to look further into future estimates of rainfall intensity to allow development of a BMP for stormwater management during any of these events. The results of this evaluation will be presented in future SWPPP updates.

4.4.2.7 **Stormwater Monitoring and Quality Assurance/Quality Control (QA/QC) Practices**

Part I.A.1 of the Permit requires sampling of the stormwater effluent and the receiving water (Chelsea Creek) at the following frequencies – see Table 4-1 for the specific analyses required:

- Stormwater Effluent:
 - Semi-monthly (2x per month), if there are at least two discharge events;
 - Monthly (includes field parameters and microbial samples); and
 - Quarterly (calendar quarters).
- Annual toxicity testing in April of stormwater effluent and receiving water

Stormwater discharge samples are collected from Outfall 003, which is shown on Figure 2. The receiving water samples are collected from the Chelsea Creek at a point immediately outside of Outfall 003's zone of influence at a reasonably accessible location. The typical creek sampling location is shown on Figure 2 but may vary based on site conditions at the time of sampling.

Table 4-1 gives details on the number of samples, type of samples, analytical methods, type and number of containers, type of preservation, type and number of field samples, and sample storage holding times. The analytical methods chosen are compliant with the sufficiently sensitive test methods approved under 40 C.F.R. Part 136.

Measurements of pH and total residual chlorine are done as field tests due to the extremely short hold times. The appropriate meters are rented and calibration records from the rental company are checked and kept in the site records. The field measurements are recorded on a field form that is kept at the Terminal.

The samples are sent to commercial contract laboratories for the various analyses and tests. Samples are typically picked up by the laboratory courier either the same day as sampling or the next morning. Due to the short holding time of some of the tests (particularly the microbial tests and acute toxicity test), the samples may be sent via express delivery (e.g., FedEx) for next morning delivery or may be hand delivered to the laboratory, depending on the time of sample collection and courier availability. Standard chain-of-custody procedures are used when the samples are submitted to the laboratory.

Where possible, the monthly, quarterly, and annual sampling events are combined so that required analyses are not duplicated. An attempt is made to collect samples during the first discharge event of the month/quarter.

Ideally, the Terminal is supposed to discharge during a “qualifying event” which means discharging under the following conditions:

- In daylight;
- On an outgoing tide (water is heading out to sea);
- At least 1 hour from both the low and high slack tide¹¹; and
- Not during low Creek water level conditions.

As stated in the Permit, EPA recognizes that storm conditions may require discharge outside of these “qualifying event” conditions, in order to avoid damaging the stormwater system or flooding the property. To the extent possible, these qualifying event conditions should be followed.

Ideally, the monthly/quarterly discharge samples should also be collected during a “qualifying event”; however, if the Terminal needs to discharge outside of those conditions, the monthly/quarterly samples can still be collected under the following conditions:

- In daylight (for safety reasons), and
- Not when the outfall is submerged (fully or partially).

Grab samples are taken from the outfall within 15 to 30 minutes of the initiation of discharge, but no later than within the first hour of initiation of discharge.

The annual toxicity test samples in April must be collected during a “qualifying event” as defined above. If a “qualifying event” does not occur in April, then the annual samples should be collected during the next “qualifying event”. The annual outfall and receiving water sampling must be done concurrently during the same sampling event. Part I Attachment A of the Terminal’s NPDES Permit details the specific requirements for the Marine Acute Toxicity Test Procedures and Protocols for the annual toxicity testing.

Field and sample results are typically reviewed within one business day of receipt from the field sampling personnel or laboratory. The laboratory analytical report narrative is reviewed for issues and the results are compared to the Permit Effluent Limits (see Table 4-1). If a result is not within the Permit Effluent Limits, potential causes are evaluated, and corrective actions developed in accordance with Section 4.11 of this Plan. Additional sampling for the parameter at issue may be conducted.

The results of the stormwater monitoring are reported on the Discharge Monitoring Reports (DMRs) that are due the 15th of the month following the end of the monitoring period. DMRs are prepared and submitted using EPA’s NetDMR online system. NetDMR is accessible through EPA’s Central Data Exchange at <https://cdx.epa.gov/>.

4.4.2.8 Integrity of Stormwater Components

The Terminal will implement a stormwater system BMP that ensures the integrity of stormwater system components through elimination of the infiltration of contaminated groundwater to the stormwater conveyance system. In the first year of the Permit term, the Terminal will complete an evaluation including the following activities:

- A one-time cross-connection evaluation between the stormwater conveyance system and the municipal separate storm sewer system (MS4);

¹¹ Slack tide is the point in time where the water appears not to be moving in or out (i.e., the tide is changing direction). Tide charts can be obtained from: <https://tidesandcurrents.noaa.gov/noaatidepredictions.html?id=8443725&legacy=1>

- Measurement of the flow rate, and flow direction of known areas of groundwater contamination based on the hydraulic gradient observed from groundwater monitoring currently underway (may use groundwater monitoring work already in progress at the Terminal);
- Sampling of methyl tert-butyl ether (MTBE) at groundwater monitoring points at the Facility, including known areas of contamination (collected during dry weather absent of tidal influence) (may use groundwater monitoring work already in progress at the Terminal); and
- Sampling of MTBE at accumulation points within the stormwater system that are likely susceptible to groundwater infiltration, including points located in known areas of groundwater contamination (collected during dry weather absent of tidal influence).

In 2017, the Terminal completed a video inspection of the readily accessible portions of the stormwater system installed below grade. There have been no modifications to the subsurface portions of the system, therefore, it was not necessary to repeat the video inspection in 2023.

If MTBE is detected above the minimum level in any of the four quarterly samples required to be taken from Outfall 003 within a calendar year (see stormwater monitoring requirements in Section 4.4.2.7) then the Terminal will initiate another evaluation of the stormwater system integrity as described above during the following calendar year (potentially including another video inspection).

If infiltration of contaminated groundwater to the stormwater system is identified through the quarterly MTBE sampling of the outfall or the sampling described above, then the Terminal will evaluate and implement appropriate corrective actions (see Section 4.11).

The results of the evaluation of the integrity of stormwater system components as described in this section will be documented in the first annual SWPPP certification (see the Introduction Section) and included in Appendix E of this SWPPP. If additional evaluations are required in future years based on the quarterly MTBE sampling of the outfall (as described above), then the results of the additional evaluations will be documented in SWPPP certification for any subsequent years.

4.4.3 Hydrostatic Test Water

The Permit allows discharge of water used for hydrostatic testing of tanks and pipeline through Outfall 003 to Chelsea Creek provided the hydrostatic test water is managed and monitored as described in the Terminal's NPDES Permit Part I.C.3. The Permit can be found in Appendix A of this Plan. The Terminal uses municipal water for hydrostatically testing its storage tanks and pipelines.

For tanks, one in-process sample of the tank water following maintenance or testing, but before draining, will be collected. For pipelines, one in-process sample of the pipeline water following depressurization, but before draining, will be collected. The sample will be analyzed, and the results of the in-process sample will be reviewed prior to initiating discharge. If the analysis indicates that the tank water does not meet the effluent limitations in the Permit, the Terminal will not discharge the tank water to Chelsea Creek unless treatment will reduce the pollutant levels below the effluent levels established in the Permit.

Effluent samples will be collected at Outfall 003 during the first 10% of the discharge, at the approximate midpoint of the discharge and during the last 10% of the discharge. One grab sample of the effluent during the first 10% of discharge is sufficient for discharges from tanks with volumes no greater than 50,000 gallons.

If at any time analysis indicates that the hydrostatic test water does not meet the effluent limitations in this Permit, corrective action must be taken in accordance with Part I.C. 1.b(1) of the Permit (see Section 4.11 of this Plan).

The in-process and effluent samples of hydrostatic test water shall be analyzed for the following parameters:

- Total Flow;

- Flow Rate;
- Total Suspended Solids (TSS);
- Oil and Grease (O&G);
- pH;
- Chemical Oxygen Demand (COD);
- Dissolved Oxygen (DO);
- Total Surfactants;
- VOCs (benzene, toluene, ethylbenzene, and total xylenes);
- Group I and II PAHs listed in Table 4-1;
- Metals (total recoverable iron and the total recoverable metals listed in Table 4-1);
- Ethanol (if the tank or pipeline had been used to store and/or convey ethanol or petroleum products containing ethanol within the previous year); and
- Total Residual Chlorine, if potable water or a similar source of water which is likely to contain residual chlorine concentrations is used for hydrostatic testing.

The hydrostatic test waters released from the tanks and pipelines will be treated through the Terminal's stormwater treatment system before being discharged to Chelsea Creek. The flow rate of hydrostatic test water will be controlled to prevent it from exceeding the maximum design flow rate of the system (i.e., 800 gpm at OWS to Outfall 003).

The Terminal will submit a letter/report to the EPA and MassDEP summarizing the results of the hydrostatic test within 90 days of the completion of the test. The report shall contain:

- 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 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
- A brief discussion of the overall test results and how they relate to the Effluent Limitations in this Permit.

In accordance with Part I.D.2 of the Permit, this letter/report should be submitted as an attachment in NetDMR. A report submitted electronically as a NetDMR attachment will be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date.

4.4.4 Bioassessment

Global will design and implement a bioassessment to characterize the extent to which, if any, pollutants discharged from the facility to Chelsea Creek affect the benthic morphology, substrate and/or biota, in accordance with Part 1.C.5 of the Permit (Appendix A). Global submitted a separate Work Plan to EPA to describe the activities required in the bioassessment. In general, data collection activities will be conducted quarterly for one year in the first/second year of the Permit term and quarterly for one year in the fifth year of the Permit term.

The bioassessment will consist of the following:

- Water column characterization;
- Substrate characterization;
- Benthic pollutant analysis; and
- Qualitative biological monitoring.

Global will submit reports to the EPA and MassDEP within 60 days after the first year's data collection and the fifth year's data collection in accordance with Part I.D.3 of the Permit.

4.4.5 Application of Herbicides

Global hires an outside contractor to provide vegetation control services at the Terminal. A range of mowing and other mechanical removal equipment is utilized to maintain a desirable vegetation height on banks. EPA-approved herbicides are also applied, in accordance with the manufacturer's instructions, to control undesirable and nuisance vegetation.

4.4.6 Proper Handling Procedures for Ethanol Storage

See Section 4.4.2.5.

4.4.7 Stormwater Discharge Best Management Practices

The following BMPs for discharging from the secondary containment dikes, discharging to Chelsea Creek and discharge and receiving waters sampling procedures have been implemented at the Terminal. The Terminal drainage system is illustrated in Figure 2.

4.4.7.1 Secondary Containment Discharge to the Drainage System

Accumulated stormwater is retained in the secondary containment dikes in the Terminal's Tank Farm until it is inspected for oil sheen or other visible pollutants. After Terminal personnel have ascertained that there is no sheen or other visible pollutant, the dike discharge valve(s) will be opened to allow the stormwater to drain to the Terminal's drainage piping system. The Loading Rack and Terminal Yard secondary containment drainage system flows to Lift Station #1. If there is a spill at the Loading Rack or in the Terminal Yard, the pumps at Lift Station #1 will be shut down, if they are not already, so that the spill would be contained and not be allowed to impact the stormwater in the retention ponds. All the Terminal's drainage piping from the dikes and the Terminal Yard flows or is pumped to Lift Station #2. From Lift Station #2, the drainage is pumped to the retention ponds.

4.4.7.2 Discharge to Chelsea Creek

After the stormwater has been pumped into the retention ponds through Lift Station #2, the retention ponds will be inspected prior to allowing discharge to the OWS. Terminal personnel will ensure there is no sheen or other visible pollutants before opening the lower retention pond discharge valve. The retention ponds discharge to the Terminal's OWS. The OWS discharges to Chelsea Creek. The OWS's discharge valve is usually open therefore the retention pond discharge valve would typically regulate the discharge of stormwater to Chelsea Creek through Outfall 003.

In accordance with the Terminal's NPDES Permit Part I.A.1, the grab samples for Outfall 003 will be collected at the discharge point to the Chelsea Creek during the first qualifying event that occurs for each required measurement frequency, after treatment through the treatment system, free from tidal influence. See the discussion of stormwater monitoring requirements in Section 4.4.2.7.

The Terminal will assess activities that may increase the potential to contribute pollutants to the stormwater discharge. Recent spills, flooding and/or Terminal construction or maintenance activities could introduce pollutants to the stormwater drainage system that would ordinarily not have been introduced. If such activities occur unexpectedly, the Terminal will assess the potential impact on the Chelsea Creek before allowing the discharge. If the activity is planned, its potential impact on Chelsea Creek will be assessed prior to the commencement of the activity.

In addition to the practices that have been implemented by the Terminal and are discussed elsewhere in the Plan, the Terminal has implemented other means to control pollutants before they are introduced to the stormwater drainage system. The Terminal sweeps all paved areas 2 times per year. The first sweeping will typically take place in late spring after the last reasonably expected snow event. The second will be performed in the fall prior to the first reasonably expected snow event.

4.5 Spill Control Best Management Practices

The Terminal has implemented a Facility Response Plan and Spill Prevention, Control and Countermeasure Plan in accordance with the requirements of 40 CFR 112. The plans detail the actions taken to prevent a spill and those taken in response to a spill of a reportable quantity at the Terminal. The plans identify the procedures for notifying the EPA, MassDEP, USCG and the City of Chelsea as required. A list of spills that have occurred at the Terminal as of the effective date of the current Permit to the present is found in Appendix C.

4.6 Stormwater System Integrity Best Management Practices

See Section 4.4.2.8.

4.7 MSGP Part 8 Sector-Specific Best Management Practices

The Terminal has incorporated some of the Sector-Specific Requirements for Industrial Activity for Standard Industrial Classification (SIC) code 5171 found in Part 8 – Subpart P – Sector P Land Transportation and Warehousing of the current Multi-Sector General Permit (MSGP – effective March 1, 2021) as BMPs.

4.7.1 Prohibited Discharges (MSGP Part 8.P.2.1)

Part 8.P.2.1 of the current MSGP prohibits the discharge of vehicle/equipment/surface wash water and water resulting from tank cleaning operations. However, as previously stated in Section 4.3.2 of this SWPPP, the following discharges allowable under Part 1.2.2.1 of the 2021 MSGP, provided these discharges meet all effluent limitations in the Permit:

- Pavement wash waters, provided that detergents or hazardous cleaning products are not used (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols), and the wash waters do not come into contact with oil and grease deposits, sources of pollutants associated with industrial activities (see MSGP Part 6.2.3), or any other toxic or hazardous materials, unless residues are first cleaned up using dry clean-up methods (e.g., applying absorbent materials and sweeping, using hydrophobic mops/rags) and appropriate control measures have been implemented to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);
- External building/structure washdown / power wash water that does not use detergents or hazardous cleaning products (e.g., those containing bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols) and appropriate control measures have been implemented to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement).

Cumberland Farms is a tenant that rents the Garage (known at the Terminal as the Cumberland Farms Garage) and parking spaces for their trucks from Global. Other fuel delivery companies rent parking spaces from Global for their trucks as well. Cumberland Farms may, on occasion, contract with a third party to perform vehicle washing on their fleet of trucks maintained at the Terminal. Other companies that park their trucks or load product at the Terminal may be invited by Cumberland Farms to have their trucks washed as well. Cumberland Farms' contractor collects the water used in the truck cleaning operations and disposes of it off-site. The truck wash water is not allowed to enter the Terminal's drainage system.

4.7.2 Good Housekeeping Measures (MSGP Part 8.P.3.1)

- Vehicle and Equipment Storage Areas (MSGP Part 8.P.3.1.1) – Vehicles, whether belonging to the Terminal or to tenants, that are leaking oil or other pollutants are required to be removed from the Terminal property and repairs made before being allowed to return to the Terminal. Vehicles may be

allowed to remain at the Terminal if the repairs are minor and can be made on-site without allowing the leaking material or any other pollutant to impact stormwater. Drip pans may be used as a temporary means of collecting any leaking material to prevent it from comingling with stormwater or being discharged. Any oil or other pollutant that has leaked to the ground or any other surface will be cleaned up as soon as practical by Terminal personnel, tenant's employees or contractors.

- Fueling Areas (MSGP Part 8.P.3.1.2) – The Terminal's truck loading rack bays are covered to help minimize exposure to precipitation. The loading rack area is inside the Terminal Yard secondary containment system. The truck re-fueling pump is inside a concrete secondary containment located within the Terminal Yard's secondary containment system. If a spill were to overflow the re-fueling pump's secondary containment, the spill would flow to the Terminal Yard's secondary containment system.
- Material Storage Areas (MSGP Part 8.P.3.1.3) – Paint, solvents, hydraulic fluids, waste oil, used oil/oil filters and product additives that are in containers are stored inside the Cumberland Farms Garage, Global Warehouses, sheds, etc. The Terminal's hazardous and universal waste collection areas are inside a warehouse adjacent to the dock road. All containers are labeled with their contents.
- Vehicle and Equipment Cleaning Areas (MSGP Part 8.P.3.1.4) – Two or three times a year Cumberland Farms sets up an area east of the Garage where a contractor washes the Cumberland Farms trucks and trailers. The contractor is required to use a curbed basin onto which the vehicles are driven to be washed. The contractor collects the wash water to prevent it from entering the Terminal's drainage system and being discharged through Outfall 003. On average, two bulk product storage tanks per year are cleaned at the Terminal. The storage tank wash water is collected and disposed of to prevent it from entering the Terminal's drainage system.
- Vehicle and Equipment Maintenance Areas (MSGP Part 8.P.3.1.5) - Cumberland Farms performs most vehicle maintenance on their truck fleet vehicles inside the Cumberland Farms Garage. Occasionally, the repair technician may perform minor maintenance in the truck parking area. When he/she performs a minor repair outdoors and the repair has the potential to result in a leak, the repair technician will place a drip pan in the appropriate area under the vehicle to catch any potential leak. Any leaks that may occur during vehicle maintenance, whether indoors or outdoors are promptly cleaned up by the technician. Terminal employees rarely perform vehicle maintenance on Terminal vehicles. If vehicle maintenance were to be performed at the Terminal, the Terminal employees would take the same precautions as the Cumberland Farms technician.
- Locomotive Sanding Areas (MSGP Part 8.P.3.1.6) – Not Applicable.

4.7.3 Employee Training (MSGP Part 8.P.3.2)

Employees are trained at least once a year on the following activities as they apply to the employee's job: used oil and spent solvent management, fueling procedures, general housekeeping practices, proper painting procedures and battery management. The Terminal typically does not handle spent solvent. Painting operations are usually performed by outside contractors. Battery management training is conducted as part of the Terminal's universal waste training.

4.8 MSGP Part 8.P.4 SWPPP Best Management Practices

4.8.1 Drainage Area Site Map (MSGP Part 8.P.4.1)

Fueling stations, vehicle/equipment maintenance or cleaning areas, outdoor storage areas for vehicle/equipment with actual or potential fluid leaks, loading/unloading areas, areas where storage of wastes occur, liquid storage tanks, processing areas and storage areas are identified on the Terminal's Site Drainage Plan – **Figure 2** in this Plan.

4.8.2 Potential Pollution Sources (MSGP Part 8.P.4.2)

Potential pollution sources are identified in Sections 2.1, 3.1 and 3.2 of this Plan. Onsite waste storage and fueling areas are further discussed in Section 4.4.2 above. MSGP Part 8.P.5 Inspection Best Management Practices

The areas and/or activities listed below are inspected by Terminal and/or Cumberland Farms personnel:

- Storage areas for vehicles/equipment awaiting maintenance;
- Fueling areas;
- Indoor and outdoor vehicle/equipment maintenance areas;
- Material storage areas;
- Vehicle/equipment cleaning areas; and
- Loading/unloading areas.

Fueling areas, material storage areas and loading/unloading areas are inspected daily by Terminal personnel as part of the Terminal's inspection program. Storage areas for vehicles awaiting maintenance and indoor and outdoor vehicle maintenance areas are inspected by Cumberland Farms personnel. Vehicle/equipment cleaning activities are inspected by Terminal and/or Cumberland Farms personnel while the cleaning is being performed.

4.9 Additional Controls to Address Impaired Waters

The Chelsea Creek is classified as Class SB (CSO). Class SB waters are described in the Massachusetts Surface Water Quality Standards at 314 CMR 4.05(4)(b) as follows: *"These waters are designated as a habitat for fish, other aquatic life and wildlife, including for their reproduction, migration, growth and other critical functions and for primary and secondary contact recreation. In certain waters, habitat for fish, other aquatic life and wildlife may include, but is not limited to, seagrass...These waters shall have consistently good aesthetic value."* The Chelsea Creek is one of ten (10) Designated Port Areas (DPAs) established by the Massachusetts Office of Coastal Zone Management to promote and protect water-dependent industrial uses. The Chelsea Creek is part of the Mystic River Basin and the Boston Harbor Drainage Area.

EPA's antidegradation regulation, at 40 C.F.R. 131.12, provides a framework for maintaining and protecting water quality for: (1) existing uses (known as "Tier 1"); (2) high quality waters by establishing a process for authorizing the lowering of water quality where existing water quality exceeds levels needed to support propagation of fish, shellfish, and wildlife and recreation in and on the water (known as "Tier 2"); and (3) for Outstanding National Resource Waters (known as "Tier 3"). While EPA's antidegradation regulation only outlines three levels of antidegradation protection, some states and tribes include an additional level of antidegradation protection between Tier 2 and Tier 3 (sometimes known as "Tier 2.5"). Tier 2, Tier 2.5, and 3 waters are identified and listed in the Massachusetts Water Quality Standards 314 CMR 4.00. Surface water qualifiers that correspond with Tier classifications are defined at 314 CMR 4.06(1)(d)m and listed in tables and figures at the end of 314 CMR 4.06. Chelsea Creek is not identified as a Tier 2, 2.5 or 3 water.

According to the *Draft Massachusetts Integrated List of Waters for the Clean Water Act* (available here <https://www.mass.gov/lists/integrated-lists-of-waters-related-reports>), the Chelsea C segment where the Terminal is located (Segment MA71-06) is listed as a Category 5 "Waters Requiring a TMDL [total maximum daily load]" and is impaired for: ammonia (un-ionized), contaminants in fish and/or shellfish (sediment screening value exceedance), fecal coliform, odor, polychlorinated biphenyls (PCBs) in fish tissue, petroleum hydrocarbons, trash, and turbidity. This segment is also impaired for debris/floatables/trash, but this category is considered a non-pollutant. A TMDL has been issued for fecal coliform for Segment MA71-06 (*Final Pathogen TMDL for the Boston Harbor, Weymouth-Weir, and Mystic*

Watersheds, October 2018; available here: https://mywaterway.epa.gov/plan-summary/MA_DEP/R1_MA_2019_01).

4.10 Corrective Actions

Per the Terminal's NPDES Permit (Part I.C.1.b.(1)), the Terminal will take corrective action(s) as required below.

1. If any of the following conditions occur the Terminal must review and revise the selection, design, installation and implementation of control measures (including BMPs) to ensure that the condition is eliminated and will not be repeated in the future:
 - a. an unauthorized release or discharge or a release of a reportable quantity of pollutants as described in 40 C.F.R. §302;
 - b. a discharge violates any permit condition, including a numeric effluent limit;
 - c. a determination by the Terminal or EPA that the control measures (including BMPs) appear to be ineffective in achieving the general objectives of controlling pollutants in discharges or are not stringent enough for the discharge to meet applicable water quality standards;
 - d. an inspection or evaluation of the Terminal by an EPA official or local or State entity, determines that modifications to the control measures are necessary to meet the non-numeric effluent limits in this Permit; or
 - e. a finding by the Terminal during a quarterly inspection that control measures are not being properly operated and maintained.
2. If any of the following conditions occur, the Terminal must review the selection, design, installation and implementation of control measures (including BMPs) to determine if modifications are necessary to meet the effluent limits in this Permit:
 - a. a change in design, construction, operation or maintenance, materials storage or activities at the Terminal that significantly changes the nature of pollutants discharged in stormwater from the Terminal or significantly increases the quantity of pollutants discharged; or
 - b. new data identifies the integrity of the stormwater system and level of groundwater infiltration into the stormwater system.
3. If the Terminal determines that changes are necessary, any modifications to control measures (including BMPs) must be made before the next discharge if possible or as soon as practicable following that discharge.
4. For corrective actions, the Terminal will document conditions included in 1 and/or 2 above. within 24 hours of identifying such conditions. The Terminal will document any corrective action(s) to be taken or if no corrective action is needed, the basis for that determination, within 14 days of identifying such conditions. The Terminal will document the following information, at a minimum:
 - a. Identification of the condition triggering the need for corrective action review;
 - b. Description of the problem identified; and
 - c. Date the problem was identified.
 - d. Summary of corrective action taken or to be taken (or, where corrective action is determined not to be necessary, the basis for this determination);
 - e. Notice of whether SWPPP modifications are required as a result of this discovery or corrective action;
 - f. Date corrective action initiated; and
5. Date corrective action completed or expected to be completed.

6. The Terminal will amend and update this Plan within 14 days for any changes at the Terminal that result in a significant effect on the potential for the discharge of pollutants to the waters of the United States or that affect this Plan. Such changes may include but are not limited to those listed in 1 and/or 2 above. Any amended, modified or new versions of this Plan will be re-certified and signed by the appropriate person in accordance with the requirements identified in this Plan's Certification found on Page II of this Plan.

Documentation of the corrective actions taken by the Terminal can be found in **Appendix G** of this Plan.

5. Procedures for Inspections

The following daily, monthly, quarterly and annual inspections are required of the Terminal by the NPDES Permit and the relevant sections of the MSGP.

5.1 Daily and Monthly Terminal Inspections

Visual inspections of the site are conducted by the Terminal Operators and/or other Terminal personnel. The inspections are conducted a minimum of once per shift but no less than once per day. The objective of the inspections is to ensure that all equipment, systems and structures are in a satisfactory condition, including environmental controls. At a minimum, the five (5) principal components of the Terminal that should be considered during these inspections are: (1) product storage and handling equipment; (2) containment and diversionary structures; (3) stormwater collection system and drainage (i.e., OWS and catch basins); (4) loading rack hoses in good condition and not leaking, Scully system operating properly, loading rack surface in good condition and free of cracks and signs reminding drivers to disconnect hoses before driving away are posted; and (5) drums in Hazardous Waste storage areas are labeled, in good condition, securely covered and not leaking. Any corrective action required as a result of a daily or monthly site inspection will be performed consistent with Section 4.11 of this Plan.

The monthly inspections conducted by Terminal personnel involve a close examination of all oil storage tanks and containers, aboveground valves and pipelines, underground piping and secondary containment areas, looking for signs of wear, corrosion or other deterioration, leaks or malfunctions and the presence of debris, vegetation or other free liquids. Tanks are inspected for drip marks, discoloration of tanks, puddles containing spilled or leaked material, corrosion, cracks, localized dead vegetation, no leaks detected in double bottom tanks and condition of paint. Tank floating roof systems will be inspected for damage and leaks. Tank foundations will be checked for cracks, discoloration, puddles of spilled or leaked material, settling, damage caused by vegetation roots and gaps between tank and foundation. Tank piping will be checked for droplets of stored material, discoloration, corrosion, bowing of pipe between supports, piping in contact with the ground, localized dead vegetation, evidence of stored material seepage from valves or seals and condition of paint. Global conducts monthly sight, smell and sound inspections of all equipment in gasoline service in accordance with 40 C.F.R. 63.424 (a). Water draw-offs are secured. Equipment integral to or supporting the oil spill discharge prevention system (e.g., lighting, instrumentation, and communications systems) will be observed as appropriate and any operational problems promptly addressed.

The daily and monthly inspections serve to meet inspection requirements of the EPA's SPCC regulations. The monthly inspections are also conducted to satisfy the requirements of API 653 or STI SP001, as appropriate, requiring monthly inspections of all ASTs constructed to the API 650 standard or tanks built to STI standards.

5.2 Quarterly (Routine) Inspections and Visual Assessments

All areas with industrial materials or activities exposed to stormwater and all structural control measures used to comply with effluent limits in the Terminal's NPDES Permit are inspected, at least once per quarter, by qualified personnel with one or more members of the stormwater pollution prevention team. Typically, the inspection team will consist of a qualified person from Global's contracted consultant and the Terminal Manager or Supervisor. Personnel from Global's EHS Department may also participate. Any corrective action required as a result of the quarterly site inspection must be performed consistent with Section 4.11 of this Plan.

As part of the quarterly inspections (aka "routine inspections"), the team inspects all areas with industrial materials or activities exposed to stormwater and all structural control measures used to comply with effluent limits in the Terminal's NPDES Permit. The inspections are performed by qualified personnel with one or more members of the stormwater pollution prevention team. Inspections will begin during the first full calendar quarter after the effective date of the Terminal's NPDES Permit. EPA considers quarters as

follows: January to March; April to June; July to September; and October to December. Inspections should be separated by at least 60 days. A copy of the Routine Inspection form is in **Appendix F**. The areas to be inspected include:

- Terminal Entrance and Egress Areas;
- Truck Loading Rack;
- Yard Area:
 - Catch Basins/Trench Drains;
 - Own-use Fuel Dispenser;
 - Additive Tank Areas; and
 - Vapor Recovery Units.
- Garage and Storage Buildings;
- Tank Farm Roads;
- All aboveground piping, valves, pumps, fittings and connection points;
- Bulk Product Storage Tanks;
- Containment areas around all storage tanks (accumulated stormwater, oil sheen, staining, soil/dike erosion, etc.);
- Waste Storage Areas;
- Warehouses;
- Foam House;
- Dock Transfer Area;
- Retention Ponds (oil sheen, floating debris, etc.);
- OWS; and
- Outfall 003.

In addition to the monthly inspection items discussed in Section 5.1, specific items to evaluate during inspections are listed on the Terminal's Quarterly Visual Inspection Form provided in Appendix F and include:

- Industrial materials, residue or trash on the ground that could contaminate stormwater;
- Leaks or spills from industrial equipment, drums, barrels, tanks or similar containers;
- Offsite tracking of industrial materials or sediment where vehicles enter or exit the site;
- Tracking, blowing or whirling of raw, final or waste materials and the evidence of or the potential for, pollutants to contact stormwater; and
- Stormwater BMPs identified in the SWPPP must be inspected and evaluated to ensure that they are operating correctly. Inspect stormwater conveyances and outfalls for erosion, integrity and potential pollutants.

In addition to the quarterly inspection discussed above, a quarterly visual assessment of a stormwater sample must be conducted. This visual assessment may or may not coincide with the quarterly inspection, but it will be conducted when a discharge sample is collected. For the visual assessment, a

stormwater sample, discharged through Outfall 003, is collected within the first 15 minutes of discharge, 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.

A copy of the Visual Assessment form is in Appendix F.

5.3 Quarterly Inspection and Visual Assessment Documentation

The inspection team will document the findings of each quarterly inspection and visual assessment and maintain this documentation onsite with this Plan. Copies of the Routine Inspection form and the Visual Assessment form are in Appendix F. At a minimum, the documentation of the quarterly inspections and visual assessments will include:

- The date of the inspection;
- The name(s) and title(s) of the personnel making the inspection;
- Findings from the examination of areas identified in Section 5.2;
- All observations relating to the implementation of the control measures including:
 - previously unidentified discharges from the site;
 - previously unidentified pollutants in existing discharges;
 - evidence of or the potential for, pollutants entering the drainage system;
 - evidence of pollutants discharging to receiving waters at all facility outfall(s) and the condition of and around the outfall, including flow dissipation measures to prevent scouring; and
 - additional control measures needed to address any conditions requiring corrective action identified during the inspection.
- Any required revisions to the SWPPP resulting from the inspection;
- Any incidents of noncompliance observed or a certification stating the facility is in compliance with its NPDES Permit (if there is no noncompliance); and
- A statement signed and certified in accordance with Part II.D.2 of the Permit.

6. Discharges, Monitoring, Recordkeeping, Reporting Requirements and Permit Transfer

6.1 Discharges

Per the Terminal's NPDES Permit, Part I.A:

- The discharge shall not cause a violation of the Massachusetts water quality standards of the receiving water.
- The effluent shall not impart taste, odor, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsuitable for the designated uses and characteristics ascribed to their use.
- The effluent shall not cause objectionable discoloration of the receiving waters.
- The effluent shall contain neither a visible oil sheen, foam, nor floating or settleable solids at any time.
- The effluent shall not contain materials in concentrations or in combinations which would impair the uses designated by the classification of the receiving water or which would cause or contribute to alterations that adversely affect the physical or chemical nature of the bottom.
- The effluent must not lower the quality of any classified body of water below such classification or lower the existing quality of any body of water if the existing quality is higher than the classification.
- The Terminal shall inspect, operate and maintain the stormwater treatment system at the Terminal to ensure that the Effluent Limitations and permit conditions are met. The Terminal shall ensure that all components of the Terminal's SWPPP, including those BMPs which specifically address the operation and maintenance of the OWS, pumps and other components of the stormwater collection and treatment system, are complied with.
- The Terminal shall not discharge any toxic pollutant or material including, but not limited to, chemicals (e.g., surfactants, disinfectant agents, detergents, emulsifiers, alcohol-resistant foam), chemical additives or bioremedial agents, including microbes, which was not reported in the permit application. Pollutants which are not limited by this Permit, but which have been specifically disclosed in the permit application, may be discharged up to the frequency and level disclosed in the application, provided that such discharge does not violate Part 307 or 311 of the CWA or applicable state water quality standards.

6.2 Monitoring Requirements

Because of the stormwater storage capacity in the tank containment areas, retention ponds and OWS, the timing of stormwater discharge events is often not linked to the timing of a precipitation event. Typically, the Terminal plans a discharge event once the retention ponds are near full and the water has had time to settle (i.e., a couple days). This could be after one or more storm events. If a large storm event is predicted, the Terminal will typically discharge as much of the precipitation retained in the stormwater system as possible prior to the storm event. Section 4.4.2.7 details the stormwater monitoring requirements including frequency, sampling methods, parameters, analytical method, definition of a "qualifying event", and numerical effluent limitations.

6.3 Recordkeeping Requirements

In accordance with the Terminal's NPDES Permit, Standard Conditions, Part II.C.1.b: except for records for monitoring information required by this Permit related to the Terminal's sewage sludge use and disposal activities, which will be retained for a period of at least five years (or longer as required by 40 C.F.R. Part 503), the Terminal will retain records of all monitoring information, including all calibration and

maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit and records of all data used to complete the application for this Permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This retention period may be extended by request of the EPA Regional Administrator at any time.

Records of monitoring information will include:

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

6.4 Reporting Requirements

The Terminal will immediately report the appearance of any size sheen attributable to the stormwater discharge from the Terminal to U.S. Coast Guard Sector Boston in accordance with Part 311 of the Clean Water Act (CWA). The Terminal will also notify, at a minimum, the National Response Center, EPA Region I and the MassDEP. A copy of the Incident Worksheet is in Appendix D of this Plan.

6.4.1 Submittal of DMRs Using NetDMR

The Terminal will continue to submit its monthly monitoring data in DMRs to EPA and MassDEP no later than the 15th day of the month electronically using EPA's NetDMR online system. When the Terminal submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or MassDEP. NetDMR is accessible through EPA's Central Data Exchange at <https://cdx.epa.gov/>.

The results of sampling for any parameter above its required frequency will also be reported on the DMRs, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 C.F.R. §122.41(1)(4)(ii).

If no discharge occurs during a month or quarter, the Terminal will report a No Data Indicator Code (e.g., "C" for "No Discharge") on the DMR.

6.4.2 Submittal of Reports

Unless otherwise specified in the Terminal's NPDES Permit, the Terminal will electronically submit all reports to EPA as NetDMR attachments rather than as hard copies. Because the due dates for reports described in this Permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report shall be considered timely if it is electronically submitted to EPA as a NetDMR attachment with the next DMR due following the particular report due date specified in this Permit.

6.4.3 Submittal of Requests and Reports to EPA Water Division (WD)

The following requests, reports and information described in this Permit shall be submitted to the NPDES Applications Coordinator in EPA WD:

- Transfer of Permit notice;
- Request for changes in sampling location;
- BMP/SWPPP reports and certifications;

- Request to discharge new chemicals or additives;
- Request for change in Whole Effluent Toxicity (WET) testing requirements;
- Bioassessment reports; and
- Report on unacceptable dilution water/request for alternative dilution water.

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

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

6.4.4 Submittal of Reports in Hard Copy Form

Written notifications required under Part II, Standard Conditions shall be signed and dated originals, submitted in hard copy, with a cover letter describing the submission. Beginning December 21, 2025, such notifications must be done electronically using EPA's NPDES Electronic Reporting Tool ("NeT") or another approved EPA system, which will be accessible through EPA's Central Data Exchange at <https://cdx.epa.gov/>.

Hard copy documents shall be submitted to EPA Region I's Enforcement and Compliance Assurance Division at the following address:

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

6.4.5 State Reporting

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

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

6.4.6 Verbal Reports and Verbal Notifications

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

Verbal reports and verbal notifications shall be made to EPA's Enforcement and Compliance Assurance Division at:

617-918-1236

Verbal reports and verbal notifications shall be made to MassDEP's Emergency Response at:

888-304-1133

6.4.7 Notification of Planned Changes

The Terminal will give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

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

6.4.8 Anticipated Non-Compliance

The Terminal will give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

6.4.9 Permit Transfer

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

6.4.10 Twenty-Four Hour Reporting Requirements

The Terminal will report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Terminal becomes aware of the circumstances. A written report shall also be provided within 5 days of the time the Terminal becomes aware of the circumstances. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance. For noncompliance events related to combined sewer overflows, sanitary sewer overflows or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows or bypass events), type of sewer overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event and whether the noncompliance was related to wet weather. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows or bypass events submitted in compliance with this section must be submitted electronically by the Terminal to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases Subpart D to Part 3), § 122.22 and 40 C.F.R. 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date and independent of Part 127, the Terminal may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require the Terminal to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows or bypass events under this section.

The following shall be included as information which must be reported within 24 hours:

- Any unanticipated bypass which exceeds any effluent limitation in the Permit. See 40 C.F.R. § 122.41(g);

- Any upset which exceeds any effluent limitation in the Permit; and
- Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the Permit to be reported within 24 hours. See 40 C.F.R. § 122.44(g).

The Director may waive the written report on a case-by-case basis for reports under Part II. D.1.e. of the Permit if the oral report has been received within 24 hours.

6.4.11 Compliance Schedules

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

6.4.12 Other Non-Compliance

The Terminal will report all instances of noncompliance not reported as described above, at the time monitoring reports are submitted. The reports shall contain the information listed in Section 6.4.10. For noncompliance events related to combined sewer overflows, sanitary sewer overflows or bypass events, these reports shall contain the information described in Section 6.4.10 and the applicable required data in Appendix A to 40 C.F.R. 127. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows or bypass events submitted in compliance with this section must be submitted electronically by the Terminal to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), §122.22 and 40 C.F.R. 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date and independent of Part 127, the Terminal may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require the Terminal to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows or bypass events under this Section.

6.4.13 Other Information

Where the Terminal becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

6.4.14 Identification of the Initial Recipient for NPDES Electronic Data Reporting

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

6.5 Signatory Requirement

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

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

6.6 Availability of Reports

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

7. Operations and Maintenance of Pollution Controls

In accordance with the Terminal's NPDES Permit, Standard Conditions, April 2018, Part II.B.1, the Terminal will, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are or will be installed or used by the Terminal to achieve compliance with the conditions of the Terminal's NPDES Permit and with the requirements of this Plan. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the Permit.

Global will take all reasonable steps to minimize or prevent and discharge, sludge use or disposal in violation of the Permit which has a reasonable likelihood of adversely affecting human health or the environment.

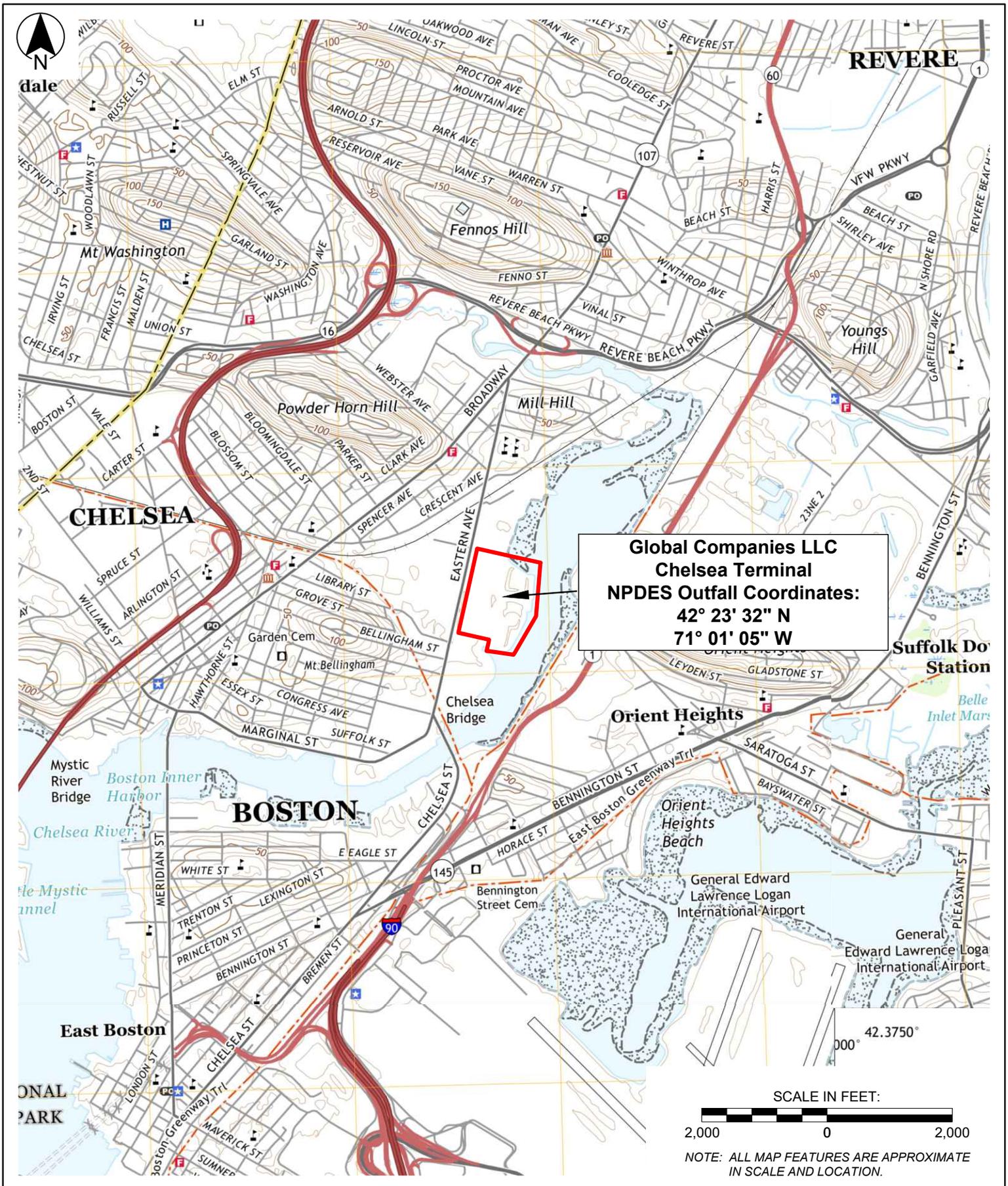
Bypass is the intentional diversion of waste streams from any portion of the facility. Global may allow a bypass that does not cause effluent limitations of the Permit to be exceeded to occur only if it is for essential maintenance to assure efficient operation. Such bypasses are not subject to the notification and prohibition requirements of Part II B.4 of the Permit.

If Global is aware a bypass will be required, Global will notify the EPA at least ten days in advance if possible. If an unanticipated bypass occurs, Global will submit a notice to the EPA within 24 hours. The notifications must be submitted electronically. Bypasses are prohibited and enforcement action may be taken against Global unless:

- The bypass was unavoidable to prevent loss of life, personal injury or severe property damage;
- There were no feasible alternatives to the bypass as described in Part II.B.4.d.(1)(b); and
- Notice was provided.

Upset is an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of Global. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance or careless or improper operation. An upset is an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of Part II.B.5.c of the Permit are met. In any enforcement proceeding, Global will have the burden of proof to establish the occurrence of an upset.

Figures



Global Companies LLC.
 Massachusetts Terminal
 281 Eastern Avenue
 Chelsea, Massachusetts

SITE LOCATION MAP

Source: Topo USGS 7.5 Minute Topographic Map
 Quadrangle: Boston North, MA
 Copyright: 2021 National Geographic Society

FIGURE 1



DATE: OCTOBER 2024

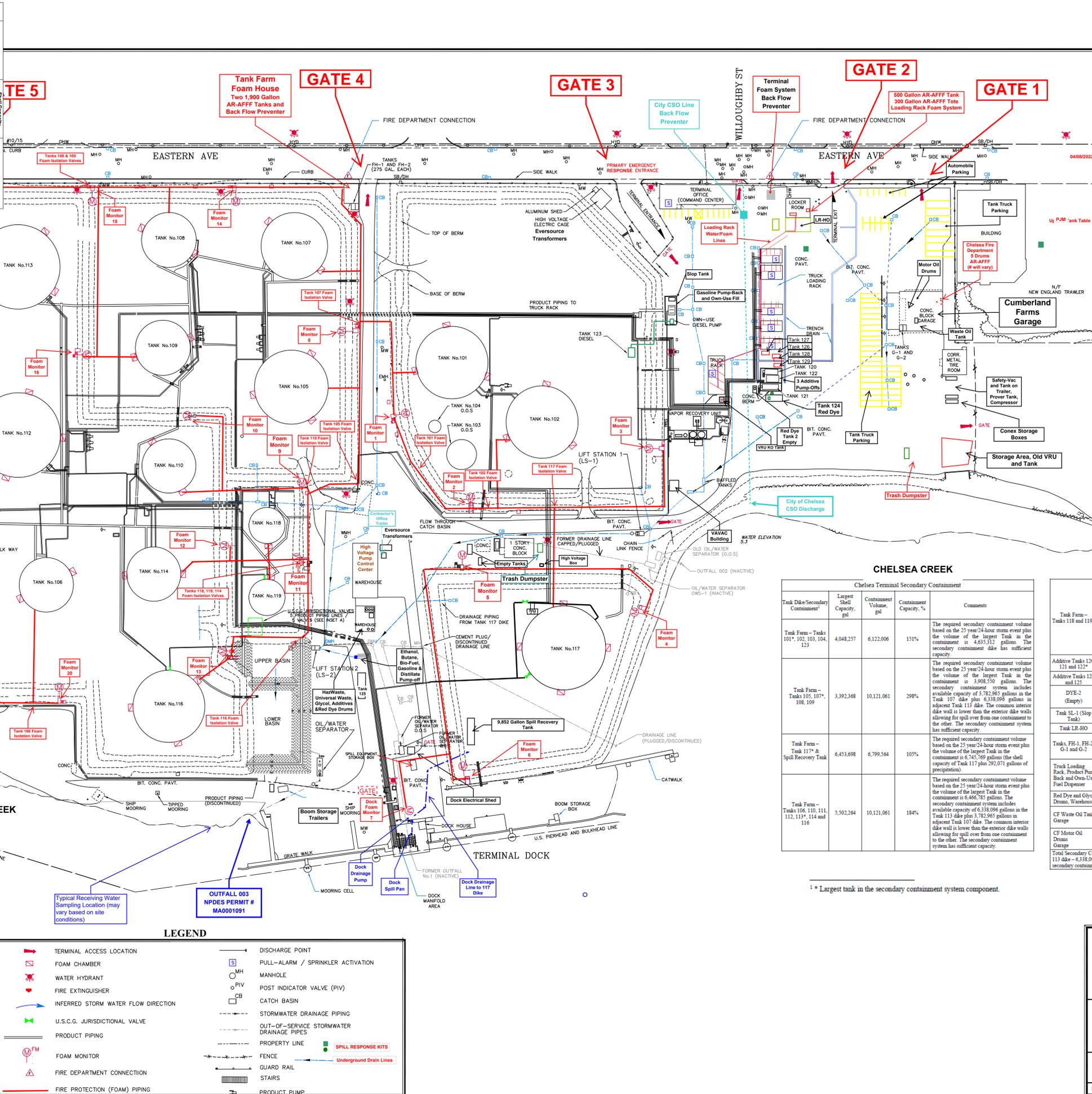
DRAWN BY: D. OLTEANU

REVIEWED BY: S. MCGOWAN

PROJECT NO.: 60733980

NO.	DATE	DESCRIPTION	BY
1	7/7/00	MODIFIED STORMWATER COLLECTION/TREATMENT/DISCHARGE (JOB # 100063)	P.S.
2	05/08/06	UPDATED OUTPUT IDENTIFICATION	P.S.
3	05/25/2014	Updated Foam Drainage, Piping & Tanks	PJM
4	06/26/2016	Update Tank Table	PJM
5	03/28/2019	Update Tank Table, Piping, Foam Lines	PJM
6			

Tank	Product	Serial #	Capacity	Volume	Height	Notes
101	Diesel	58,387	4,048,257		150	
102	Diesel	58,387	3,981,934		150	
103	Empty	16,506	695,877		150	
104	Empty	1,944	62,600		150	
105	Gasoline/Diesel	79,931	3,242,238		150	
106	Energy/Formerly Diesel	53,942	2,296,535		150	
107	Gasoline/Diesel	80,771	3,292,898		150	
108	Gasoline	53,966	2,296,535		150	
109	Gasoline	53,965	2,296,535		150	
110	Gasoline	53,779	2,296,535		150	
111	Diesel/Used Cooking Oil	53,794	2,296,535		150	
112	Gasoline	130,007	5,040,297		150	
113	Etanoldiesel	131,008	5,029,284		150	
114	Empty					
115	Empty					
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NO.	DATE	DESCRIPTION	BY
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6			

CHELSEA CREEK				
Chelsea Terminal Secondary Containment				
Tank/Dike/Secondary Containment ¹	Largest Shell Capacity, gal	Containment Volume, gal	Containment Capacity, %	Comments
Tank Farm - Tanks 118 and 119*	1,185,209	7,017,991	592%	The required secondary containment volume based on the 25 year/24-hour storm event plus the volume of the largest Tank in the containment is 1,275,004 gallons. The secondary containment system includes available capacity of 6,792,895 gallons in the Tank 118 dike plus 6,338,096 gallons in adjacent Tank 113 dike. The common interior dike wall is lower than the exterior dike walls allowing for spill over from one containment to the other. The secondary containment system has sufficient capacity.
Additive Tanks 120, 121 and 122*	10,026	20,618	206%	Poured concrete containment. Sufficient capacity for 3,818 gallons of storm water.
Additive Tanks 124 and 125	3,007 ea.	N/A	N/A	Double Walled Tanks.
DYE-2 (Empty)	250	374	150%	Tank is in a 50'-ft containment located adjacent to the Additive Tanks within the Loading Rack containment system.
Tank SL-1 (Slop Tank)	275	2,214	>110%	Poured concrete containment. Sufficient capacity for 992 gallons of storm water.
Tank LR-HO	1,003	N/A	N/A	Double Walled Tank.
Tank, FH-1, FH-2, G-1 and G-2	275	N/A	N/A	Tanks are inside buildings (Foam House and CF Garage) with solid concrete flooring with curb (FH) or sloped inward (G). No storm water impact.
Truck Loading Rack, Product Pump Back and Own-Use Fuel Dispenser	10,000 (the largest tank truck compartment)	175,000	>110%	Retention Basins - 167,000 gallons OWS - 8,000 gallons. See discussion regarding storm water impact at the end of this table.
Red Dye and Glycol Drums, Warehouse	55	73	133%	Drums are stored indoors on 4-drum spill pallets. No storm water impact.
CF Waste Oil Tank Garage	275	422	153%	Steel Containment inside Garage. Cumberland Farms is responsible for this tank. No storm water impact.
CF Motor Oil Drums Garage	55	73	133%	Drums are stored on spill pallets and platforms. The drums are the responsibility of Cumberland Farms. No storm water impact.
Total Secondary Containment is 23,921,300 Gallons. (Tank 101 dike - 6,122,006; Tank 107 dike - 3,782,965; Tank 113 dike - 6,338,096; Tank 117 dike - 6,799,564; Tank 119 dike - 6,792,895; plus retention ponds, OWS capacity and secondary containments for additive tanks.)				

Tank Farm - Tanks 118 and 119*	1,185,209	7,017,991	592%	The required secondary containment volume based on the 25 year/24-hour storm event plus the volume of the largest Tank in the containment is 1,275,004 gallons. The secondary containment system includes available capacity of 6,792,895 gallons in the Tank 118 dike plus 6,338,096 gallons in adjacent Tank 113 dike. The common interior dike wall is lower than the exterior dike walls allowing for spill over from one containment to the other. The secondary containment system has sufficient capacity.
Additive Tanks 120, 121 and 122*	10,026	20,618	206%	

Appendix A

NPDES Permit #MA0001091, Parts I & II

Appendix A contains the Terminal's NPDES Permit Parts I and II. Part I of the Permit is also accessible through the EPA's website at:

[2022 Gulf Oil Limited Partnership Final Permit, MA0001091 \(epa.gov\)](https://www.epa.gov/npdes/2022-gulf-oil-limited-partnership-final-permit-ma0001091)

**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),

Gulf Oil Limited Partnership

is authorized to discharge from a facility located at

**Gulf Oil Terminal
281 Eastern Avenue
Chelsea, MA 02150**

to receiving water named

**Chelsea River (MA71-06)
Mystic River Watershed**

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

This permit shall become effective on December 1, 2022.

This permit expires at midnight on November 30, 2027.

This permit supersedes the permit issued on September 24, 2014.

This permit consists of this **cover page, Part I, Attachment A** (Marine Acute Toxicity Test Procedure and Protocol, July 2012), and **Part II** (NPDES Part II Standard Conditions, April 2018).

Signed this 30th day of September

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

PART I**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date and lasting through the expiration date, the Permittee is authorized to discharge treated stormwater and hydrostatic test water through **Outfall Serial Number 003** to the Chelsea River. The discharge shall be limited and monitored as specified below; the receiving water shall be monitored as specified below.

Effluent Characteristic	Effluent Limitation		Monitoring Requirements ^{1,2,3}	
	Average Monthly	Maximum Daily	Measurement Frequency ⁴	Sample Type
Flow Rate Oil/Water Separator ⁵	---	800 GPM	When Discharging	Estimate
Total Effluent Flow ⁶	---	Report MGal/Mo	When Discharging	Meter
Number of Events	---	Report #	When Discharging	Count
Total Suspended Solids (TSS)	30 mg/L	100 mg/L	2/Month	Grab
Turbidity	Report NTU	Report NTU	2/Month	Grab
pH ⁷	6.5 - 8.5 S.U.		1/Month	Grab
Chemical Oxygen Demand	---	Report mg/L	1/Month	Grab
Oil and Grease	---	15 mg/L	1/Month	Grab
Fecal Coliform	---	Report MPN	1/Month	Grab
<i>Enterococcus</i> ⁸	---	Report CFU	1/Month	Grab
Benzene ⁹	---	5 µg/L	1/Month	Grab

Effluent Characteristic	Effluent Limitation		Monitoring Requirements ^{1,2,3}	
	Average Monthly	Maximum Daily	Measurement Frequency ⁴	Sample Type
Ethylbenzene ⁹	---	Report µg/L	1/Year ¹⁰	Grab
Toluene ⁹	---	Report µg/L	1/Year ¹⁰	Grab
Total Xylenes ⁹	---	Report µg/L	1/Year ¹⁰	Grab
Benzo(a)pyrene ¹¹	0.00013 µg/L	Report µg/L	1/Month	Grab
Benzo(a)anthracene ¹¹	---	Report µg/L	1/Month	Grab
Benzo(b)fluoranthene ¹¹	0.0013 µg/L	Report µg/L	1/Month	Grab
Benzo(k)fluoranthene ¹¹	0.013 µg/L	Report µg/L	1/Month	Grab
Chrysene ¹¹	---	Report µg/L	1/Month	Grab
Dibenzo(a,h)anthracene ¹¹	---	Report µg/L	1/Month	Grab
Indeno(1,2,3-cd)pyrene ¹¹	0.0013 µg/L	Report µg/L	1/Month	Grab
Naphthalene ¹¹	---	20 µg/L	1/Month	Grab
Acenaphthene ¹¹	---	Report µg/L	1/Year ¹⁰	Grab
Acenaphthylene ¹¹	---	Report µg/L	1/Year ¹⁰	Grab
Anthracene ¹¹	---	Report µg/L	1/Year ¹⁰	Grab
Benzo(g,h,i)perylene ¹¹	---	Report µg/L	1/Year ¹⁰	Grab
Fluoranthene ¹¹	---	Report µg/L	1/Year ¹⁰	Grab

Effluent Characteristic	Effluent Limitation		Monitoring Requirements ^{1,2,3}	
	Average Monthly	Maximum Daily	Measurement Frequency ⁴	Sample Type
Fluorene ¹¹	---	Report µg/L	1/Year ¹⁰	Grab
Phenanthrene ¹¹	---	Report µg/L	1/Year ¹⁰	Grab
Pyrene ¹¹	---	Report µg/L	1/Year ¹⁰	Grab
Total Residual Chlorine ¹²	---	13 µg/L	1/Month	Grab
Methyl tert-butyl Ether	---	Report	1/Quarter	Grab
Perfluorohexanesulfonic acid (PFHxS) ¹³	---	Report ng/L	1/Quarter	Grab
Perfluoroheptanoic acid (PFHpA) ¹³	---	Report ng/L	1/Quarter	Grab
Perfluorononanoic acid (PFNA) ¹³	---	Report ng/L	1/Quarter	Grab
Perfluorooctanesulfonic acid (PFOS) ¹³	---	Report ng/L	1/Quarter	Grab
Perfluorooctanoic acid (PFOA) ¹³	---	Report ng/L	1/Quarter	Grab
Perfluorodecanoic (PFDA) ¹³	---	Report ng/L	1/Quarter	Grab
Copper	---	5.8 µg/L	1/Month	Grab
Total Ammonia (as N) (April 1 through October 31)	---	1.8 mg/L	1/Month	Grab
Whole Effluent Toxicity (WET) Testing ^{14,15}				
LC ₅₀	---	Report %	1/Year	Grab
Total Residual Chlorine	---	Report mg/L	1/Year	Grab

Effluent Characteristic	Effluent Limitation		Monitoring Requirements ^{1,2,3}	
	Average Monthly	Maximum Daily	Measurement Frequency ⁴	Sample Type
Salinity	---	Report g/kg	1/Year	Grab
pH	---	Report SU	1/Year	Grab
Total Solids	---	Report mg/L	1/Year	Grab
Total Suspended Solids	---	Report mg/L	1/Year	Grab
Ammonia Nitrogen	---	Report mg/L	1/Year	Grab
Total Organic Carbon	---	Report mg/L	1/Year	Grab
Total Cadmium	---	Report µg/L	1/Year	Grab
Total Copper	---	Report µg/L	1/Year	Grab
Total Lead	---	Report µg/L	1/Year	Grab
Total Nickel	---	Report µg/L	1/Year	Grab
Total Zinc	---	Report µg/L	1/Year	Grab

Ambient Characteristic ¹⁶	Reporting Requirements		Monitoring Requirements ^{1,2,3}	
	Average Monthly	Maximum Daily	Measurement Frequency ⁴	Sample Type ⁵
Salinity	---	Report g/kg	1/Year	Grab
Ammonia Nitrogen	---	Report mg/L	1/Year	Grab

Total Cadmium	---	Report µg/L	1/Year	Grab
Total Copper	---	Report µg/L	1/Year	Grab
Total Nickel	---	Report µg/L	1/Year	Grab
Total Lead	---	Report µg/L	1/Year	Grab
Total Zinc	---	Report µg/L	1/Year	Grab
pH ¹⁷	---	Report SU	1/Year	Grab
Temperature ¹⁷	---	Report °C	1/Year	Grab
Benzene	---	Report µg/L	1/Year ¹⁸	Grab
Ethylbenzene	---	Report µg/L	1/Year ¹⁸	Grab
Toluene	---	Report µg/L	1/Year ¹⁸	Grab
Total Xylenes	---	Report µg/L	1/Year ¹⁸	Grab
Benzo(a)anthracene	---	Report µg/L	1/Year ¹⁸	Grab
Benzo(a)pyrene	---	Report µg/L	1/Year ¹⁸	Grab
Benzo(b)fluoranthene	---	Report µg/L	1/Year ¹⁸	Grab
Benzo(k)fluoranthene	---	Report µg/L	1/Year ¹⁸	Grab
Chrysene	---	Report µg/L	1/Year ¹⁸	Grab
Dibenzo(a,h)anthracene	---	Report µg/L	1/Year ¹⁸	Grab
Indeno(1,2,3-cd)pyrene	---	Report µg/L	1/Year ¹⁸	Grab

Acenaphthene	---	Report $\mu\text{g/L}$	1/Year ¹⁸	Grab
Acenaphthylene	---	Report $\mu\text{g/L}$	1/Year ¹⁸	Grab
Anthracene	---	Report $\mu\text{g/L}$	1/Year ¹⁸	Grab
Benzo(g,h,i)perylene	---	Report $\mu\text{g/L}$	1/Year ¹⁸	Grab
Fluoranthene	---	Report $\mu\text{g/L}$	1/Year ¹⁸	Grab
Fluorene	---	Report $\mu\text{g/L}$	1/Year ¹⁸	Grab
Naphthalene	---	Report $\mu\text{g/L}$	1/Year ¹⁸	Grab
Phenanthrene	---	Report $\mu\text{g/L}$	1/Year ¹⁸	Grab
Pyrene	---	Report $\mu\text{g/L}$	1/Year ¹⁸	Grab

Footnotes:

1. Grab samples for Outfall 003 shall be collected at a point after treatment through the Facility's oil/water separator (OWS) prior to comingling with any other wastestream and free from tidal influence. Samples shall be grab samples taken within 15 minutes of the initiation of a discharge during a qualifying event where practicable, but in no case later than within the first hour of discharge from the outfall. Changes in sampling location must be approved in writing by the Environmental Protection Agency Region 1 (EPA) and the State. The Permittee shall report the results to EPA and the State of any additional testing above that required herein, if testing is done in accordance with 40 Code of Federal Regulations (CFR) § 136.
2. In accordance with 40 CFR § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) the method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) the method has the lowest ML of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers to either the sample concentration equivalent to

the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.

3. When a parameter is not detected above the ML, the Permittee must report the data qualifier signifying less than the sample ML for that parameter (e.g., < 5 µg/L, if the sample ML for a parameter is 5 µg/L). For calculating and reporting the average monthly concentration when one or more values are not detected, assign a value of zero to all non-detects and report the average of all the results. The number of exceedances shall be enumerated for each parameter in the field provided on every Discharge Monitoring Report (DMR).
4. Measurement frequency of “when discharging” is defined as the sampling of any measurable discharge event, reported for each calendar month. Sampling frequency of 1/month is defined as the sampling of one discharge event in each calendar month. Sampling frequency of 1/year is defined as the sampling of one discharge event during one calendar year, unless otherwise specified. If no sample is collected during the measurement frequencies defined above, the Permittee must report an appropriate No Data Indicator Code.
5. For Flow Rate, the maximum daily value represents the maximum instantaneous flow rate measured by the Facility as passing through the OWS for each day that a discharge occurs during the reported period. The maximum instantaneous flow rate, which is to be reported in units of gallons per minute (GPM), shall be an estimate based on the summation of the pump curve value(s) for all pumps in operation which control the rate of flow through the OWS when discharge is occurring. The Permittee shall at no time exceed the design flow rate of the treatment system.
6. For Total Flow, the value reported represents the sum of the recorded discharge volume for each day that effluent is discharged during that month, measured at the OWS using a totalizer or similar device. Total Flow shall be reported in the units of millions of gallons per month (Mgal/Mo). The Permittee shall also report the total number of days during the reporting period discharges from the outfall occurred (i.e., a measurable volume of effluent passes through the totalizer or similar device), noted on the discharge monitoring report (DMR) form under “Event Total” parameter. The required meter shall be operational no later than 180 days following the effective date of the permit. Following the effective date of the permit and until the required meter becomes operational, but no more than 180 days following the effective date of the permit, the Permittee may report Total Flow as an estimate based on the estimated flow rate and the total hours of pump operation.

7. The pH shall be within the specified range at all times. The minimum and maximum pH sample measurement values for the month shall be reported in standard units (S.U.).
8. Results must be reported as colony forming units (CFU) per 100 mL. After a minimum of one year following the effective date of the permit and 12 samples, the sampling frequency for *Enterococcus* shall reduce to 1/year if all sample results are less than the applicable water quality criteria.
9. The ML for analysis for benzene, ethylbenzene, toluene and total xylenes shall be no greater than 2 µg/L.
10. The Permittee shall conduct annual monitoring of the effluent during the month of April for the following compounds: acenaphthene, acenaphthylene, anthracene, benzo(g,h,i)perylene, fluoranthene, fluorene, phenanthrene, pyrene, toluene, ethylbenzene, and total xylenes. Sampling shall be performed during the first Qualifying Event and concurrently with the April monthly monitoring event. A Qualifying Event shall be defined as a discharge that occurs during daylight hours on an outgoing tide at least one hour from both the low and high slack tide. To identify a Qualifying Event, the permittee may use tide charts to predict the two four-hour intervals of an outgoing tide each day that are one hour from both low and high slack tide. If a measurable discharge does not occur such that sampling cannot be completed during the first Qualifying Event of the required sampling frequency, the permittee is to sample the next Qualifying Event. If no discharge occurs during the month of April, the Permittee shall sample the next qualifying event.
11. Analysis for the Group I and II Polycyclic Aromatic Hydrocarbons (PAHs) shall use Method 625.1 (low level GC/MS). The expected ML for benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene is 0.05 µg/L. The expected ML for dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene is 0.1 µg/L. The expected ML for acenaphthene, acenaphthylene, anthracene, benzo(g,h,i)perylene, fluoranthene, fluorene, naphthalene, phenanthrene, and pyrene is 5 µg/L. The compliance level for Group I PAHs with numeric effluent limits less than the detection limit shall be non-detect at any sample ML above the numeric limit.
12. For the purposes of this permit, TRC analysis must be completed using a test method in 40 CFR § 136 that achieves a minimum level of detection no greater than 30 µg/L. The compliance level for TRC is 30 µg/L. The Permittee may request that this limit and associated monitoring apply only to discharges that have been previously chlorinated or that contain residual chlorine following completion of a source identification study demonstrating the source of TRC and implementation of BMPs to control TRC in the effluent.

13. This reporting requirement takes effect during the first quarter following six months after receiving written notification of the availability of the multi-laboratory validation of analytical test Method 1633 for the analysis of PFAS in wastewater and biosolids. Results must be reported in nanograms per liter (ng/L). After three years of monitoring or a minimum of 12 samples, if all samples are non-detect for all six PFAS compounds using EPA's multi-lab validated method for wastewater, the Permittee may request to remove the requirement for PFAS monitoring.
14. The Permittee shall conduct acute toxicity tests (LC₅₀) 1/year in the month of April in accordance with test procedures and protocol specified in **Attachment A** of this permit. LC₅₀ is defined in Part II.E. of this permit. The Permittee shall test the mysid shrimp (*Americamysis bahia*), and the inland silverside, *Menidia beryllina*. The complete report for each toxicity test shall be submitted as an attachment to the monthly DMR submittal immediately following the completion of the test. If no discharge occurs during the month of April, the Permittee shall sample the next qualifying event.
15. For Part I.A.1., Whole Effluent Toxicity Testing, the Permittee shall conduct the analyses specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS for the effluent sample. If toxicity test(s) using the receiving water as diluent show the receiving water to be toxic or unreliable, the Permittee shall follow procedures outlined in **Attachment A**, Section IV., DILUTION WATER. Even where alternate dilution water has been used, the results of the receiving water control (0% effluent) analyses must be reported. Minimum levels and test methods are specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS.
16. For Part I.A.1., Ambient Characteristic, the Permittee shall conduct the analyses specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS for the receiving water sample collected as part of the WET testing requirements. Such samples shall be taken from the receiving water at a point immediately upstream of the permitted discharge's zone of influence at a reasonably accessible location, as specified in **Attachment A**. Minimum levels and test methods are specified in **Attachment A**, Part VI. CHEMICAL ANALYSIS.
17. A pH and temperature measurement shall be taken of each receiving water sample at the time of collection and the results reported on the appropriate DMR. These pH and temperature measurements are independent from any pH and temperature measurements required by the WET testing protocols.
18. The Permittee shall conduct annual monitoring of the receiving water during the month of April for the following compounds: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, acenaphthene, acenaphthylene, anthracene, benzo(g,h,i)perylene, fluoranthene, fluorene, naphthalene, phenanthrene, pyrene, benzene, toluene, ethylbenzene, and total xylenes. The ML for analysis shall be equivalent to the ML for effluent monitoring. The receiving water sample shall be collected from the Chelsea River at a point immediately outside of Outfall 003's

zone of influence at a reasonably accessible location. Sampling shall be performed during a Qualifying Event concurrently with the annual toxicity monitoring event and annual effluent monitoring described above.

Part I.A. continued.

2. The discharge shall not cause a violation of the water quality standards of the receiving water.
3. The discharge shall be free from pollutants in concentrations or combinations that, in the receiving water, settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity; or produce undesirable or nuisance species of aquatic life.
4. The discharge shall be free from pollutants in concentrations or combinations that adversely affect the physical, chemical, or biological nature of the bottom.
5. The discharge shall not result in pollutants in concentrations or combinations in the receiving water that are toxic to humans, aquatic life or wildlife.
6. The discharge shall be free from floating, suspended and settleable solids in concentrations or combinations that would impair any use assigned to the receiving water.
7. The discharge shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.
8. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR § 122.42):
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - (1) 100 micrograms per liter ($\mu\text{g/L}$);
 - (2) 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (mg/L) for antimony;
 - (3) Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR § 122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 CFR § 122.44(f) and State regulations.
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - (1) 500 $\mu\text{g/L}$;
 - (2) One mg/L for antimony;
 - (3) 10 times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR § 122.21(g)(7); or

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

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

B. UNAUTHORIZED DISCHARGES

1. This permit authorizes discharges only from the outfall(s) listed in Part I.A.1, in accordance with the terms and conditions of this permit. Discharges of wastewater from any other point sources are not authorized by this permit and shall be reported in accordance with Part D.1.e.(1) of the Standard Conditions of this permit (24-hour reporting).

2. The following discharges are expressly prohibited:

- a. Discharge of tank bottom water and/or bilge water alone or in combination with stormwater discharge or other wastewater;
- b. Discharge of any sludge and/or bottom deposits from any storage tank(s), basin(s), and/or diked area(s) to the receiving waters. Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, oil/water separators, petroleum product storage tanks, baffled storage tanks collecting spills, and tank truck loading rack sumps;
- c. Discharge of liquid hazardous waste alone or in combination with stormwater or other wastewater;
- d. Discharges of runoff from any vehicle and equipment washing alone or in combination with stormwater or other wastewater, including from the leased property;
- e. Discharges of ballast water alone or in combination with stormwater or other wastewater;
- f. Runoff resulting from accidental spill or release, alone or in combination with stormwater or other wastewater;
- g. Discharges of emulsion chemicals, including surfactants (e.g., detergents and soaps) alone or in combination with stormwater or other wastewater;
- h. Discharges of contaminated groundwater, including, but not limited to wastewater generated during activities conducted under the Massachusetts Contingency Plan, alone or in combination with stormwater or other wastewater;
- i. Discharges of aqueous film-forming foam and alcohol resistant foam either in concentrate form or as foam diluted with water during testing or maintenance of the fires suppression system at the Facility's marine vessel dock

C. SPECIAL CONDITIONS

1. Best Management Practices (BMPs)

- a. The Permittee shall design, install, and implement control measures to minimize pollutants discharged from stormwater associated with the Facility operations to the receiving water. At a minimum, the Permittee must implement control measures, both structural controls (e.g., OWS, containment areas, holding tanks) and non-structural (e.g., operational procedures and operator training) consistent with those described in Part 2.1.2 and of EPA's Multi-Sector General Permit (MSGP).¹ The control measures must ensure the following non-numeric effluent limitations are met:
 - (1) Minimize exposure of processing and material storage areas to stormwater discharges;
 - (2) Design good housekeeping measures to maintain areas that are potential sources of pollutants;
 - (3) Implement preventative maintenance programs to avoid leaks, spills, and other releases of pollutants to stormwater that is discharged to receiving waters;
 - (4) Implement spill prevention and response procedures to ensure effective response to spills and leaks if or when they occur, including, but not limited to, those required by Section 311 of the CWA, 33 U.S.C. § 1321. The Permittee shall report immediately the appearance of any size sheen attributable to the discharge from the Facility to the appropriate agency of the United States Government in accordance with Section 311 of the CWA;
 - (5) Design of erosion and sediment controls 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;
 - (6) Utilize runoff management practices to divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff;
 - (7) Develop proper handling procedures for salt or materials containing chlorides that are used for snow and ice control;
 - (8) Conduct employee training to ensure personnel understand the requirements of this permit;
 - (9) Evaluate for the presence of non-stormwater discharges and require the elimination of any non-stormwater discharges not explicitly authorized in this permit or covered by another NPDES permit; and
 - (10) Minimize dust generation and vehicle tracking of industrial materials.
 - (11) Demonstrate that no illicit discharges exist, including, but not limited to, sanitary sewer cross connections. If any illicit discharge is detected, the Permittee shall locate, identify, and eliminate the illicit discharge as expeditiously as possible;
 - (12) Use known, available, and reasonable methods to prevent rodents, birds, and other animals from feeding/nesting/roosting at the Facility. Known, available, and

¹ The current MSGP was effective March 21, 2021 and is available at <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp>.

- reasonable methods do not include methods that would be construed as a violations of any applicable federal, state, or local statutes, ordinances, or regulations, including the Migratory Bird Act;
- (13) Implement practices to minimize bacteria from known sources (e.g., dumpsters, food waste, or animal waste).

b. In addition, the Permittee must design, install, and/or implement the following BMPs:

- (1) The Permittee shall comply with the inspection requirements in Parts 3.1 and 3.2 of the 2021 MSGP, the corrective action requirements in Part 5.1 of the 2021 MSGP, and the corrective action documentation requirements in Part 5.3 of the 2021 MSGP. If any of the following conditions occur or are detected during an inspection, monitoring or by other means, the Permittee shall review and revise, as appropriate, the SWPPP so that the permit's effluent limits are met and pollutant discharges are minimized:
 - i. An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this or another NPDES permit;
 - ii. A discharge violates a numeric effluent limit listed in Part I.A of this permit;
 - iii. The stormwater control measures are not stringent enough to control stormwater discharges as necessary such that the receiving water will meet applicable water quality standards and/or the non-numeric limits in Part I.C of this permit;
 - iv. A required control measure was never installed, was installed incorrectly, or is not being properly operated or maintained; and
 - v. Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).
- (2) The Permittee shall comply with the control measure requirements in Part 2.1 and 2.1.1 of the 2021 MSGP in order to identify pollutant sources and select, design, install and maintain the pollution control technology necessary to meet the effluent limitations in the permit that ensure dilution is not used as a form of treatment.
- (3) The Permittee shall minimize, to the maximum extent practicable, discharging stormwater and hydrostatic test water during worst-case conditions (i.e., approximately one hour before and after slack tide and during periods of lowest receiving water flow) The Permittee shall, to the maximum extent practicable, discharge stormwater and hydrostatic test water on an outgoing tide. In the event that a discharge outside of the parameters described above cannot be avoided, the Permittee shall document the reason for the discharge in an attachment to the SWPPP.
- (4) The Permittee shall document the measures and methods used to control flow through the stormwater treatment system to ensure that the design flow of the treatment system is not exceeded.
- (5) The Permittee shall design and implement response procedures for ethanol, materials that are used for spill and fire control (e.g. aqueous film-forming foam). This must include specific provisions for the treatment of ethanol and/or pollutants in materials that are used for spill and fire control, should release occur.

- (6) The Permittee shall implement structural improvements, enhanced/resilient pollution prevention measures, and/or other mitigation measures to minimize² discharges that result from impacts of major storm and flood events.³ The Permittee must document in the SWPPP its evaluation of the major storm and flood risks at the Facility, and all control measures considered to address discharges resulting from these risks. For all control measures considered, the Permittee must document in the SWPPP the factual basis (i.e., the maps, data sets and calculations for the analysis), for either implementing or not implementing the measure. The factual basis and analysis must be presented in sufficient detail to allow EPA, the public, or an independent qualified person to evaluate the reasonableness of the decision. For control measures already in place, including requirements from state, local or federal agencies, a description of the controls and how they meet the requirement(s) of this permit must be documented in the SWPPP. The Permittee must consider, at a minimum, the following control measures to minimize discharges:^{4,5}
- i. Reinforce materials storage structures to withstand flooding and additional exertion of force;
 - ii. Prevent floating of semi-stationary structures by elevating above the relative base flood elevation⁶ or securing with non-corrosive device;
 - iii. When a delivery of materials is expected, and a storm is anticipated within 48 hours, delay delivery until after the storm or store materials as appropriate (refer to emergency procedures);

² For the purposes of this provision, the term “minimize” means to reduce and/or eliminate to the extent achievable using stormwater control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice.

³ “Major storm and flood events” refers to instances resulting from major storms such as hurricanes, extreme/heavy precipitation events, and pluvial, fluvial, and flash flood events such as high-water events, storm surge, and high-tide flooding. “Extreme/heavy precipitation” refers to instances during which the amount of rain or snow experienced in a location substantially exceeds what is normal. What constitutes a period of heavy precipitation varies according to location and season. “Extreme/heavy precipitation” does not necessarily mean the total amount of precipitation at a location has increased—just that precipitation is occurring in more intense or more frequent events.

⁴ To determine the risks at the Facility of discharges from major storm and flood events, you must conduct the evaluation using, at a minimum, the worst-case data relating to changes in precipitation, sea level rise, extreme weather events, coastal flooding, and inland flooding, and relevant to the facility’s discharges from: 1) the data generated by the 13 federal agencies that conduct or use research on global change that contributed to the latest National Climate Assessment produced by the U.S. Global Change Research Program (USGCRP); 2) climate data generated by the Commonwealth of Massachusetts; and 3) resiliency planning completed by the municipality in which a given facility is located (i.e., City of Boston, Revere, and Chelsea) and incorporate the results of the evaluation in a manner that demonstrates that the control measures taken are precautionary and sufficiently protective. Evaluation must be completed by a qualified person on a rolling annual basis considering: 1) historical observations from all years the Permittee has operated the facility prior to this permit’s term; 2) all observations of events that occurred in the calendar year; and 3) the 25 to 100 years forward-looking from the review year to assess impacts that are likely to occur.

⁵ EPA Region 1 currently maintains a resource of additional data sources for evaluation and incorporation pursuant to this BMP at <https://www.epa.gov/npdes-permits/dewatering-and-remediation-general-permit-drpg>.

⁶ Relative base flood elevation is the computed elevation to which floodwater is anticipated to rise during the reference flood. BFEs shown on the Federal Emergency Management Agency’s Flood Maps, for example, are the elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. This is the regulatory standard also referred to as the “100-year flood.” The base flood is the national standard used by the National Flood Insurance Program (NFIP), accessed at <https://msc.fema.gov/portal/search>.

- iv. Temporarily store materials and waste above the relative base flood elevation;
 - v. Temporarily reduce or eliminate outdoor storage;
 - vi. Temporarily relocate any mobile vehicles and equipment to upland areas;
 - vii. Develop scenario-based emergency procedures for major storms that are complementary to regular stormwater pollution prevention planning and identify emergency contacts for staff and contractors; and
 - viii. Conduct staff training for implementing your emergency procedures at regular intervals.
- (7) The Permittee shall document quality assurance/quality control (QA/QC) practices including, at a minimum:
- i. A summary of the monitoring requirements specified in the permit;
 - ii. A map and/or treatment system diagram indicating the location of each sampling location with a geographic identifier (i.e., latitude and longitude coordinates);
 - iii. Specifications for the number of samples, type of samples, type and number of containers, type of preservation, type and number of quality assurance samples, if applicable, type and number of field samples, if applicable, and sample storage, holding times, and shipping methods, including chain-of-custody procedures;
 - iv. Specifications for EPA-approved test methods and sufficiently sensitive minimum levels for each required parameter;
 - v. A schedule for review of sample results; and
 - vi. A description of data validation and data reporting processes.
- (8) The Permittee shall implement a stormwater system BMP that ensures the integrity of stormwater system components through elimination of the infiltration of contaminated groundwater to the stormwater conveyance system where such infiltration contributes pollutants but are not otherwise explicitly authorized (i.e., by another NPDES permit). Within one year of the effective date of the permit, the Permittee must complete:
- i. One-time cross-connection evaluation, to ensure that the stormwater conveyance system does not contribute pollutants to or convey pollutants from a municipal separate storm sewer system (MS4) to the receiving water;
 - ii. A schedule for routine visual or video inspection of the readily accessible portions of the stormwater system installed below grade;
 - iii. Measurement of the flow rate, and flow direction of known areas of groundwater contamination;
 - iv. Sampling of MtBE at groundwater monitoring points representative of groundwater conditions at the Facility, including known areas of contamination, collected during dry weather absent of tidal influence;
 - v. Sampling of MtBE at accumulation points within the stormwater system that are likely susceptible to groundwater infiltration, including points located in known areas of contamination, collected during dry weather absent of tidal influence in addition to routine MtBE monitoring at Outfall 003 as required in Part I.A.1; and
 - vi. A procedure for implementation and confirmation of corrective actions in accordance with Part I.C.1.b.(1), above, to eliminate infiltration of groundwater to the stormwater conveyance system where such infiltration is identified through the quarterly MtBE sampling as required in Part I.A.1 and/or described above. If MtBE is detected above the minimum level in any of the four quarterly samples

taken within a calendar year, the Permittee shall repeat the sampling requirements identified in (ii) through (v) during the following calendar year. Confirmation of monitoring the stormwater system integrity shall be documented in the first annual SWPPP certification and, when required based on MtBE detection, in the SWPPP certification for any subsequent years.

2. Stormwater Pollution Prevention Plan

The Permittee shall develop and implement a Stormwater Pollution Prevention Plan (SWPPP) that documents the selection, design and installation of control measures, including BMPs designed to meet the effluent limitations required in this permit to minimize the discharge of pollutants from the Facility's operations to the receiving water. The SWPPP shall be a written document and consistent with the terms of this Permit.

- a. The SWPPP shall be developed and signed consistent with the signatory requirements in Part II.D.2 of this Permit within 90 days after the effective date of this Permit.
- b. The SWPPP shall be consistent with the general provisions for SWPPPs included in Part 6 of EPA's MSGP. The SWPPP shall be prepared in accordance with good engineering practices and manufacturer's specifications and must take future conditions into consideration. The SWPPP must identify potential sources of pollution that may reasonably be expected to affect the quality of the stormwater discharges, and document the implementation of non-numeric technology based effluent limitations in Part I.C.1 that will be used to reduce the pollutants and assure compliance with this Permit, including any remedies taken when non-compliance occurs. Specifically, the SWPPP shall contain the elements listed in Parts 6.2.1 through 6.2.5 of the 2021 MSGP and briefly described below:
 - (1) Stormwater pollution prevention team;
 - (2) Site description;
 - (3) Drainage area site map;
 - (4) Summary of potential pollutant sources;
 - (5) Description of all stormwater control measures; and
 - (6) Schedules and procedures pertaining to implementation of stormwater control measures, inspections and assessments, and monitoring.
- c. The Permittee shall amend and update the SWPPP within fourteen (14) days of any changes at the Facility affecting the SWPPP. Changes that may affect the SWPPP include, but are not limited to: 1) a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the United States; 2) a release of a reportable quantity of pollutants as described in 40 CFR § 302; 3) a determination by the Permittee or EPA that the SWPPP appears to be ineffective in achieving the general objective of controlling pollutants in stormwater discharges associated with industrial activity; and 4) any revisions or improvements made to the Facility's stormwater management program based on new information and experiences with wet weather events, including major storm events and

extreme flooding conditions. Any amended or updated versions of the SWPPP shall be re-certified by the Permittee. Such re-certifications also shall be signed in accordance with the requirements identified in Part II.D.2 of this Permit.

- d. The Permittee shall certify at least annually that the previous year's inspections, corrective actions, control measures, and training activities were conducted, results were recorded, and records were maintained, as described in the SWPPP. Certifications must be submitted by January 15th of the following calendar year. If the Facility is not in compliance with any limitations and/or BMPs described in the SWPPP, 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 Part II.D.2 of this Permit. The Permittee shall submit a copy of the current SWPPP and all SWPPP certifications (i.e., the initial certification, recertifications, and annual certifications) signed during the effective period of this Permit to EPA for posting on EPA Region 1's Chelsea River Terminals public website. All documentation of SWPPP activities shall be kept at the Facility for at least five years and provided to EPA upon request.

3. Hydrostatic Test Water

Hydrostatic test water shall be monitored as described below and treated through the stormwater treatment system prior to being discharged through Outfall 003 to the Chelsea River, and is subject to the Effluent Limitations in Part I.A.1., above.

- a. The flow of hydrostatic test water into the stormwater treatment system shall be controlled to prevent it from exceeding the maximum design flow rate of the system (i.e., 800 gpm at OWS to Outfall 003).
- b. The Permittee shall take a minimum of five representative samples of the hydrostatic test water:
 - (1) For tanks, one in-process sample of the tank water following maintenance or testing, but before draining. The operator shall analyze and review the results of the in-process sample prior to initiating discharge. If the analysis indicates that the tank water does not meet the effluent limitations in this permit, the operator shall not discharge the tank water to the river unless treatment will reduce the pollutant levels below the effluent levels established in this permit;
 - (2) For pipelines, one in-process sample of the pipeline water following depressurization, but before draining. The operator shall analyze and review the results of the in-process sample prior to initiating discharge. If the analysis indicates that the pipeline water does not meet the effluent limitations in this permit, the operator shall not discharge the pipeline water unless treatment will reduce the pollutant levels below the effluent levels established in this permit; and
 - (3) Three grab samples of the effluent (at the discharge point for the treatment system), one sample during the first 10% of discharge, one sample at the approximate midpoint of discharge, and one sample during the last 10% of discharge after

- treatment. One grab sample of the effluent during the first 10% of discharge is sufficient for discharges from tanks with volumes no greater than 50,000 gallons. If at any time analysis indicates that the hydrostatic test water does not meet the effluent limitations in this permit, corrective action must be taken in accordance with Part I.C.1.b(1), above.
- c. The in-process and effluent samples of hydrostatic test water shall be analyzed for the following parameters:
- (1) Total Flow;
 - (2) Flow Rate;
 - (3) Total Suspended Solids (TSS);
 - (4) Oil & Grease (O&G);
 - (5) pH;
 - (6) Chemical Oxygen Demand (COD);
 - (7) Dissolved Oxygen (DO);
 - (8) Total Surfactants;
 - (9) VOCs (benzene, toluene, ethylbenzene, and total xylenes);
 - (10) PAHs (Group I and II PAHs listed in Part I.A.1., benzo(a)anthracene through pyrene);
 - (11) Metals (total recoverable iron, and total recoverable metals listed in Part I.A.1., Whole Effluent Toxicity, cadmium through zinc);
 - (12) Ethanol, if tank or line has been used to store and/or convey ethanol and/or petroleum products containing ethanol within the previous year; and
 - (13) Total Residual Chlorine, if potable water or a similar source of water which is likely to contain residual chlorine concentrations is used for hydrostatic testing.
- d. 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:
- (1) The date(s) during which the hydrostatic testing occurred;
 - (2) The volume of hydrostatic test water discharged;
 - (3) 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
 - (4) A brief discussion of the overall test results and how they relate to the Effluent Limitations in this permit.
- e. EPA reserves the right to re-open this 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 water quality standards for the assigned classification of the Chelsea River might not be attained.

4. Discharges of Chemicals and Additives

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

- a. The following information for each chemical and/or additive that will be discharged:
 - (1) Product name, chemical formula, general description, and manufacturer of the chemical/additive;
 - (2) Purpose or use of the chemical/additive;
 - (3) Safety Data Sheet (SDS), Chemical Abstracts Service (CAS) Registry number, and EPA registration number, if applicable, for each chemical/additive;
 - (4) The frequency (e.g., daily), magnitude (i.e., maximum application concentration), duration (e.g., hours), and method of application for the chemical/additive;
 - (5) The maximum discharge concentration; and
 - (6) The vendor's reported aquatic toxicity, if available (i.e., NOAEL and/or LC₅₀ in percent for aquatic organism(s)).
- b. Written rationale which demonstrates that the discharge of such chemicals and/or additives as proposed will not: 1) add any pollutants in concentrations which exceed any permit effluent limitation; and 2) add any pollutants that would justify the application of permit conditions different from, or in addition to those currently in this permit.
- c. Discharges of glutaraldehyde, ethylene glycol, butoxyethanol, alkylacrylate nitro styrene polymer, coco alkylamine, 1,2,3 and 4-trimethylbenzene, 1,3,5-trimethylbenzene and methyl isobutyl ketone are prohibited.

5. Bioassessment

The Permittee shall design and implement a bioassessment to characterize the extent to which, if any, pollutants discharged from the Facility to the receiving water affect the benthic morphology, substrate, and/or biota. Unless otherwise specified below, data collection activities shall be conducted: 1) quarterly for one year starting 90 days following the effective date of the permit; and 2) quarterly for one year in the fifth year of the permit term. Within 60 days of the effective date of the permit, the Permittee shall submit a plan for conducting the bioassessment to EPA and MassDEP. EPA and MassDEP will provide any comments on the plan within 30 days of receipt of the plan, and comments will be reasonably considered by the Permittee for inclusion into the plan. The bioassessment must comply with applicable local, state and federal regulations, and shall consist of the following elements, at a minimum:

a. Water Column Characterization

- (1) One water quality monitoring station shall be established within the vicinity of Outfall 003. The station must be positioned to collect water quality data representative of incoming and outgoing tides.
- (2) For each monitoring period, relative water quality data must be collected at the water quality monitoring station during the months of January, April, July and October at approximately:
 - i. one foot below the surface;
 - ii. mid-depth; and
 - iii. one foot above the bottom.
- (3) At each collection depth, the following data shall be collected:
 - i. depth from the surface (feet);
 - ii. water temperature (degrees Fahrenheit);
 - iii. pH (Standard Units);
 - iv. dissolved oxygen (milligrams per liter);
 - v. salinity (parts per thousand);
 - vi. turbidity (nephelometric turbidity units);
 - vii. nutrients; and
 - viii. current velocity (feet per second).
- (4) During each quarterly data collection period, all water quality data at all station depths shall be collected over a 48-hour period during the apex of the spring tide and the neap tide.
 - i. Continuous recording data sondes shall be used to collect water quality data for all parameters (except where noted otherwise in Part I.C.6) at all depths. The recording frequency shall be at least one reading for all parameters, every 15 minutes over the course of the 48-hour sampling period.
 - ii. Current velocity data may be collected manually at the water monitoring station, at the three depths, every three hours (when deemed safe to do so), over the course of the 48-hour sampling period.
- (5) The following supporting environmental data, recorded concurrent with continuous water quality data collection, shall be obtained from a near-by official weather station and a near-by official tide gauge:
 - i. local air temperature (degrees Fahrenheit), collected at least once per hour, over the 48-hour sampling period;
 - ii. local total precipitation (inches) for each 24-hour period, beginning 48 hours before water quality data is collected through the end of the 48-hour sampling period (four days in total);
 - iii. the river level in relation to mean low water level when data is collected over the 48-hour sampling period; and
 - iv. the tidal stage (flood current, ebb current) when data is collected over the 48-hour sampling period.

b. Substrate Characterization

- (1) For each year that data collection is required, substrate characterization shall be conducted once. The Permittee shall collect samples of the substrate as follows:
 - i. Along a transect upstream of the outfall from the bank to the approximate edge of the navigation channel and a transect downstream of the outfall from the bank to the approximate edge of the navigation channel. Transects shall be positioned perpendicular to river current.
 - ii. At each location, three substrate samples must be collected at evenly spaced intervals between the bank and the edge of the main navigational channel.
 - iii. The location, depth, and analysis of each substrate sample shall be recorded. The depth information must be calibrated to the mean low water level.
 - iv. The analysis of each substrate sample must include, at a minimum, grain size composition (percent of silt, sand, and clay); total organic carbon (TOC); and benthic infauna.
 - v. Secchi disk readings shall be recorded at each location.

c. Benthic Pollutant Analysis

- (1) Concurrent with substrate data collection and in the same locations, the Permittee shall collect additional substrate samples to determine contamination present within the benthic habitat. The parameters required for analysis shall include:
 - i. Table I.A.1 pollutants;
 - ii. Total volatile solids, acid volatile sulfides, sediment oxidation reduction potential; and
 - iii. Sediment toxicity test (i.e., 10-day static test).
- (2) Analysis shall be performed using the test method for each constituent in accordance with EPA-600-R-97-072.⁷

d. Qualitative Biological Monitoring

- (1) The permittee shall conduct a qualitative biological assessment to determine the organisms present in the vicinity of the water quality monitoring station.
- (2) The collection effort shall take place, at a minimum, in April, July and October, as specified above, and on a sequential basis during year three.
- (3) The biological survey shall be designed to collect:
 - i. fish (early life stages, juvenile, and adult);
 - ii. benthic macroinvertebrates;
 - iii. aquatic macrophytes;
 - iv. phytoplankton;
 - v. zooplankton;
 - vi. epibenthos; and
 - vii. paleoenvironmental remains (e.g., diatoms, dinoflagellates, and foraminifera)

⁷ Methods for the Determination of Chemical Substances in Marine and Estuarine Environmental Matrices - 2nd Edition: EPA-600-R-97-072. Office of Research and Development, U.S. EPA, Washington, D.C. 1997, as specified in 314 CMR 4.03(6)(f).

- (4) The organisms shall be identified to species. For larger bodied organisms that are collected, an evaluation of overall condition shall be recorded (e.g., spawning condition, lesions, or deformities).

e. Summary Report

- (1) The Permittee shall prepare and submit a report to EPA and MassDEP within 60 days of the first permit year's (four quarters) data collection and the fifth permit year's (four quarters) data collection in accordance with Part I.D.3 of this Permit.
- (3) The summary report shall consist of the following, at a minimum:
 - i. A description of the sampling locations, including a figure depicting the geographic locations, a figure depicting the vertical distribution relative to mean low tide, and a copy of the laboratory data sheets for each analysis.
 - ii. A brief discussion of the overall bioassessment results and how they relate to the effluent limitations in this permit.
 - iii. A description of the results of water column characterization, and a table summarizing the sample results.
 - iv. A description of the substrate characterization results, and a table summarizing the sample results.
 - v. A description of the benthic pollutant analysis, and a table summarizing the sample results.
 - vi. A description of the biological assessment results, and a table summarizing the total number of each species of organisms found for each monitoring period, the date they were collected, the depth (if available), and location where they were collected.
 - vii. A brief discussion of whether any of the requirements of the QA/QC BMP were not met. If any QA/QC requirements impact the usability of data, the Permittee must repeat collection of the unacceptable data.

D. REPORTING REQUIREMENTS

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

1. Submittal of DMRs Using NetDMR

The Permittee shall continue to submit its monthly monitoring data in DMRs to EPA and the State no later than the 15th day of the month electronically using NetDMR. When the Permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to EPA or the State. NetDMR is accessible through EPA's Central Data Exchange at <https://cdx.epa.gov/>.

2. Submittal of Reports as NetDMR Attachments

Unless otherwise specified in this permit, the Permittee shall electronically submit all reports to EPA as NetDMR attachments rather than as hard copies. *See* Part I.D.5. for more information

on State reporting. Because the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this permit.

3. Submittal of Requests and Reports to EPA Water Division (WD)

- a. The following requests, reports, and information described in this permit shall be submitted to the NPDES Applications Coordinator in EPA WD:
 - (1) Transfer of Permit notice;
 - (2) Request for changes in sampling location;
 - (3) BMP/SWPPP reports and certifications;
 - (4) Request to discharge new chemicals or additives;
 - (5) Request for change in WET/PFAS testing requirements;
 - (6) Bioassessment reports; and
 - (7) Report on unacceptable dilution water/request for alternative dilution water.
- b. These reports, information, and requests shall be submitted to EPA WD electronically at R1NPDESReporting@epa.gov or by hard copy mail to the following address:

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

4. Submittal of Reports in Hard Copy Form

- a. The following notifications and reports shall be signed and dated originals, submitted in hard copy, with a cover letter describing the submission:
 - (1) Written notifications required under Part II, Standard Conditions. Beginning December 21, 2025, such notifications must be done electronically using EPA's NPDES Electronic Reporting Tool ("NeT"), or another approved EPA system, which will be accessible through EPA's Central Data Exchange at <https://cdx.epa.gov/>.
- b. This information shall be submitted to EPA Region 1's Enforcement and Compliance Assurance Division at the following address:

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

5. State Reporting

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

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

6. Verbal Reports and Verbal Notifications

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

617-918-1510

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

888-304-1133

E. REOPENER CLAUSE

1. This permit may be modified or revoked and reissued in accordance with 40 C.F.R. §122.62. The reason for modification or revocation may include, but is not limited to:
 - a. Material and substantial alterations or additions to the Terminal or activity have occurred.
 - b. New information is received which was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance.
 - c. An applicable effluent standard or limitation is issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the CWA, which:
 - (1) Contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or
 - (2) Controls any pollutant not limited by this permit.

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

F. STATE PERMIT CONDITIONS

EPA has received the state water quality certification issued by the State under § 401(a) of the CWA and 40 CFR § 124.53. EPA incorporates by reference the following state water quality certification requirements into this final permit.

- Pursuant to 314 CMR 3.11 (2)(a)(6), and in accordance with MassDEP's obligation under 314 CMR 4.05(5)(e) to maintain surface waters free from pollutants in concentrations or combinations that are toxic to humans, aquatic life, or wildlife, within 6 months of the effective date of the 2021 Federal NPDES permit, the permittee shall submit to MassDEP an evaluation of whether the facility uses any products containing any per- and polyfluoroalkyl substances (PFAS) and whether use of those products can be reduced or eliminated. The analysis shall be submitted electronically to massdep.npdes@mass.gov.
- Pursuant to 314 CMR 3.11 (2)(a)(6), and in accordance with MassDEP's obligation under 314 CMR 4.05(5)(e) to maintain surface waters free from pollutants in concentrations or combinations that are toxic to humans, aquatic life, or wildlife, within 6 months after the permittee has been notified by EPA of a multi-lab validated method for wastewater, or two years from the effective date of the 2021 Federal NPDES permit, whichever is earlier, the permittee shall conduct monitoring of the effluent for PFAS compounds as detailed in the table below. If the permittee has not been notified by EPA of a multi-lab validated method for wastewater by two years from the effective date of the 2021 Federal NPDES permit, the permittee shall conduct monitoring of the effluent for PFAS compounds as detailed in the table below using a method specified by MassDEP. If EPA's multi-lab validated method is not available by 20 months after the effective date of the 2021 Federal NPDES permit, the permittee shall contact MassDEP (massdep.npdes@mass.gov) for guidance on an appropriate analytical method.

Effluent (Outfall 001)

Parameter	Units	Measurement Frequency	Sample Type
Perfluorohexanesulfonic acid (PFHxS)	ng/L	Quarterly ⁸	Grab
Perfluoroheptanoic acid (PFHpA)	ng/L	Quarterly	Grab
Perfluorononanoic acid (PFNA)	ng/L	Quarterly	Grab
Perfluorooctanesulfonic acid (PFOS)	ng/L	Quarterly	Grab
Perfluorooctanoic acid (PFOA)	ng/L	Quarterly	Grab
Perfluorodecanoic acid (PFDA)	ng/L	Quarterly	Grab

⁸ Quarters are defined as January to March, April to June, July to September, and October to December. Samples shall be taken during the same month each quarter and shall be taken 3 months apart (e.g., an example sampling schedule could be February, May, August, and November).

3. Pursuant to 314 CMR 3.11 (2)(a)(6), and in accordance with MassDEP's obligation under 314 CMR 4.05(5)(e) to maintain surface waters free from pollutants in concentrations or combinations that are toxic to humans, aquatic life, or wildlife, after completing one year of monitoring, if 4 consecutive samples are reported as non-detect for all 6 PFAS compounds, then the permittee may submit a request to MassDEP to discontinue PFAS monitoring. Any such request shall be made in writing and sent to massdep.npdes@mass.gov. The permittee shall continue such monitoring pending written approval from MassDEP to discontinue it.



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Bethany A. Card
Secretary

Martin Suuberg
Commissioner

November 1, 2022

Christopher Gill, Director EHS
Gulf Oil Chelsea Terminal
80 William Street, Suite 400
Wellesley Hills, MA 02481

Re: Final 2022 Massachusetts Permit to Discharge Pollutants to Surface Waters for Gulf Oil Terminal

Dear Mr. Gill:

Enclosed please find the Final 2022 Massachusetts Permit to Discharge Pollutants to Surface Waters ("Final State Permit" or "Surface Water Discharge Permit") for Gulf Oil Terminal issued by the Massachusetts Department of Environmental Protection ("MassDEP") pursuant to the Massachusetts Clean Waters Act, as amended (M.G.L. Chap. 21, §§ 26-53), and the implementing regulations at 314 CMR 3.00 and 314 CMR 4.00. On September 30, 2022 the United States Environmental Protection Agency ("USEPA") issued NPDES Permit MA0001091 for Gulf Oil Terminal. The NPDES Permit issuance included MassDEP's Final Water Quality Certificate. Please note that NPDES and Surface Water Discharge Permits are no longer jointly issued by EPA and MassDEP.

Also enclosed is MassDEP's response to the comments received on the five draft Chelsea Creek terminal state permits as well as the Notice of Appeal Rights for the Surface Water Discharge Permit.

The Final State Permit will become effective on the date specified in the permit unless you file a timely appeal with MassDEP's Office of Appeals and Dispute Resolution. Information regarding the appeals process, including deadlines for filing an appeal, may be found at <https://www.mass.gov/guides/about-the-massdep-appeals-process>.

MassDEP appreciates your cooperation throughout the development of this Final State Permit. Please contact Ms. Cathy Coniaris, the MassDEP permit writer, at 617-835-6693 or catherine.coniaris@mass.gov if you have any questions.

This information is available in alternate format. Contact Glynis Bugg at 617-348-4040.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

Sincerely,

A handwritten signature in black ink, appearing to read "Lealdon Langley". The signature is fluid and cursive, with a prominent initial "L".

Lealdon Langley, Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts

Ecc:

Andrew Adams, Gulf Oil
Julio Mazzoli, Gulf Oil
Jennifer Atkins, AECOM
Shauna Little, EPA
Damien Houlihan, EPA
Lynne Jennings, EPA
Bob Boeri, MCZM

Enclosures:

Attachment 1: Final State Permit
Attachment 2: Response to Comments
Attachment 3: Notice of Appeal Rights for Surface Water Discharge Permits

MASSACHUSETTS PERMIT TO DISCHARGE POLLUTANTS TO SURFACE WATERS

In compliance with the provisions of the Massachusetts Clean Waters Act, as amended (M.G.L. Chap. 21, §§ 26 - 53) and the implementing regulations at 314 CMR 3.00 and 4.00,

Gulf Oil Limited Partnership

is authorized to discharge from the facility located at

Gulf Oil Terminal
281 Eastern Avenue
Chelsea, MA 02150

to receiving water named

Chelsea River (MA71-06)
Mystic River Watershed

in accordance with the following effluent limitations, monitoring requirements and additional conditions:

1. This permit shall become effective on December 1, 2022.
2. This permit shall expire five years after the effective date.
3. This permit supersedes the permit issued on September 24, 2014.
4. This permit incorporates by reference Part IA., Effluent Limitations and Monitoring Requirements, Part IB., Unauthorized Discharges, Part IC., Special Conditions, Part ID. Reporting Requirements, and Part II, Standard Conditions, as set forth in the 2021 draft NPDES Permit No. MA0001091, issued by the United States Environmental Protection Agency (EPA), Region 1, issued to the Gulf Oil Terminal on February 10, 2021 (the 2021 Draft NPDES Permit) and attached hereto as Appendix A; provided, however:
 - a. that the notification required by Part IA.8. shall also be provided to MassDEP;
 - b. that the reporting required by Part IB.1 shall be in accordance with 314 CMR 3.19(20)(e) (24 hour reporting);
 - c. that discharges of a new chemical or additive authorized under Part IC.4. are only authorized under this permit 30 days following written notification to MassDEP, unless otherwise notified in writing by MassDEP;
 - d. that a copy of the requests, reports, and information required by Part ID.3. to be submitted to EPA shall also be submitted to MassDEP electronically to massdep.npdes@mass.gov;
 - e. that, if there is a conflict between the definitions in 314 CMR 3.02 and/or 314 CMR 4.00 and the definitions in Part IIE, the definitions in 314 CMR 3.02 and/or 314 CMR 4.00 shall control, as applicable;
 - f. that the notifications required by 4.a. and 4.c. above shall be provided as follows:

Laura Schifman
NPDES Acting Section Chief
Division of Watershed Management
Department of Environmental Protection
100 Cambridge Street – Suite 900
Boston, MA 02108

5. This permit incorporates by reference the Standard Permit Conditions set forth in 314 CMR 3.19.
6. This permit includes the following additional conditions:
 - a. Within six (6) months of the effective date of the permit, the permittee shall submit to MassDEP an evaluation of whether the facility uses any products containing any per- and polyfluoroalkyl substances (PFAS) and whether use of those products can be reduced or eliminated. The analysis shall be submitted electronically to massdep.npdes@mass.gov.
 - b. Notwithstanding any other provision of the 2022 Federal NPDES General Permit to the contrary, PFAS monitoring results shall be reported to MassDEP electronically at massdep.npdes@mass.gov, or as otherwise specified, within 30 days after they are received.
 - c. After completing one year of monitoring, if four (4) consecutive samples are reported as non-detect for all six PFAS compounds, then the permittee may submit a request to discontinue PFAS monitoring. Any such request shall be made in writing and to: massdep.npdes@mass.gov. The permittee shall continue such monitoring pending written approval from MassDEP to discontinue it.

Signed this 1st day of November 2022



Lealdon Langley, Director
Division of Watershed Management
Department of Environmental Protection

RESPONSE TO COMMENTS

Massachusetts Surface Water Discharge Permits
Chelsea Sandwich LLC, Chelsea, MA0003280
Global Companies LLC, Revere, MA0000825
Gulf Oil Terminal, Chelsea, MA0001091
Irving Oil Terminal, Revere, MA0001929
Sunoco Logistics Terminal, East Boston, MA0004006

The Massachusetts Department of Environmental Protection (MassDEP or the “Department”) is issuing Surface Water Discharge (SWD) Permits to the following fuel terminals located near Chelsea River: Chelsea Sandwich LLC, Chelsea, MA0003280, Global Companies LLC, Revere, MA0000825, Gulf Oil Terminal, Chelsea, MA0001091, Irving Oil Terminal, Revere, MA0001929, and Sunoco Logistics Terminal, East Boston MA0004006. These permits are being issued under the Massachusetts Clean Waters Act, as amended (M.G.L. Chap. 21, §§ 26 - 53) and the implementing regulations at 314 CMR 3.00 and 4.00.

In accordance with the provisions of 314 CMR 2.09, MassDEP is obligated to prepare a response to comments received on the draft SWD Permits listed above. The Response to Comments explains and supports MassDEP’s determinations that form the basis of the final permits. From February 10, 2021 through April 11, 2021, MassDEP solicited public comments on the five Draft Surface Water Discharge Permits for the discharge of treated stormwater and hydrostatic test water from Chelsea Sandwich outfall 002 (internal), Global outfalls 001 and 002, Gulf outfall 003, Irving outfall 001, and Sunoco outfall 001. Chelsea Sandwich outfall 002 (internal) is also authorized to discharge treated groundwater. Chelsea Sandwich outfall 001 is authorized to discharge boiler blowdown/steam condensate. Global outfall 003 (internal) is only authorized to discharge treated groundwater.

MassDEP notes that the Global draft permit included five outfalls: 001, 002, 003 (internal), and 004 to Chelsea River, and 005 to Sales Creek. Upon the sale and transfer of the former Global REVCO, Global Companies, and Global South properties on June 28, 2022, Global Companies LLC leased back a portion of the site and only maintains and discharges from outfalls 001, 002 and outfall 003 (internal). EPA terminated the 2014 NPDES permit for Global REVCO (MA0003298) on June 28, 2022. The final Global SWD permit reflects the reduced number of outfalls.

During the public comment period for the draft NPDES permit (February 10, 2021 through April 11, 2021), EPA received comments from:

1. Conservation Law Foundation
2. Environmental Data & Governance Initiative
3. GreenRoots
4. Northeastern University – Social Science Environmental Health Research Institute
5. Mystic River Watershed Association

6. City of Chelsea
7. C. J. Livingstone

EPA also received comments from the permittees on their respective permits:

1. Chelsea Sandwich
2. Global Petroleum
3. Gulf Oil
4. Irving
5. Sunoco

In addition, a virtual joint public meeting was held on March 15, 2021 and a virtual joint public hearing was held on March 29, 2021 on the draft NPDES Permits, the draft SWD Permits, and the draft MassDEP Water Quality Certificates (WQCs). MassDEP issued WQCs for each of the five facilities on May 11, 2021.

MassDEP has reviewed EPA's Response to Comments, issued concurrently with the final NPDES permits on September 30, 2022, and concurs with their responses and the associated adjustments made to the final NPDES permits. MassDEP hereby incorporates by reference EPA's Response to Comments into this Response.

During the public comment period for the draft SWD Permit, MassDEP received comments from:

1. Tom Keefe, Chelsea Sandwich LLC, Chelsea, April 8, 2021
2. Tom Keefe, Global Companies LLC, Revere, April 8, 2021
3. Christopher Gill, Gulf Oil Terminal, Chelsea, April 9, 2021
4. David Fradette, Irving Oil Terminal, Revere, April 8, 2021
5. John J. Frost, Sunoco Logistics Terminal, East Boston, April 11, 2021
6. John Walkey, GreenRoots, April 9, 2021
7. Patrick Herron, Mystic River Watershed Association, April 9, 2021

MassDEP's knowledge of the facility has benefited from the various comments and additional information submitted during the public comment period but the information and arguments presented did not raise any substantial new questions concerning the Permit that warranted MassDEP exercising the discretion to reopen the public comment period. MassDEP does, however, make certain clarifications in response to comments. Any improvements and changes are explained in this document and reflected in the Final Permit. Below, MassDEP provides a summary of the changes made in the Final Permit. The analyses underlying these changes are contained in the responses to individual comments that follow.

A copy of the Final Permits, Final WQCs, and this Response to Comments document will be posted on the MassDEP website: <https://www.mass.gov/info-details/massachusetts-final-individual-surface-water-discharge-permits-and-associated-documents>.

Copies of the Final Permits may be obtained by writing or calling Cathy Coniaris, MassDEP, Surface Water Discharge Permitting Program; telephone: 617-835-6693; email: catherine.coniaris@mass.gov.

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I. Summary of Changes to the Final Permits

1. The PFAS sampling language in the SWD permits has been modified to better align with the 2022 final EPA NPDES permits for the five fuel terminal facilities.
2. MassDEP contact information was updated.

II. Responses to Comments

Comments are reproduced below as received; they have not been edited, corrected or otherwise modified.

A. Comments from Tom Keefe, Chelsea Sandwich LLC, Chelsea, and Global Companies LLC, both letters dated April 8, 2021

MassDEP requires in its permit that although PFAS sampling is suspended pending issuance of an EPA approved method, if the method is not available by two (2) years from the effective date of the NPDES permit, the Facility shall conduct monitoring of the effluent for PFAS compounds using a method specified by MassDEP. If no EPA method is approved within twenty (20) months after the effective date of the NPDES permit, the Facility must contact MassDEP (massdep.npdes@mass.gov) for guidance on an appropriate analytical method. Again, this requirement places an unnecessary burden on the permittee to monitor when EPA releases a method on its website, rather than notice by the agencies to all permit holders of the necessary next steps.

Request:

The Facility requests that EPA delete quarterly monitoring and reporting for PFAS effluent from the Facility (Outfall 001) until six (6) months after EPA has formally approved applicable test methods under 40 CFR Part 136.

The Facility also requests that MassDEP delete the quarterly monitoring and reporting for PFAS effluent from the Facility (Outfall 001) until six (6) months after EPA has formally approved applicable test methods under 40 CFR Part 136.

In the alternative, the Facility requests that the Draft Permit and MassDEP Permit be amended to include that EPA and MassDEP will issue written notice to the permit holder upon approval of the sampling method for PFAS effluent and the compliance schedule to implement such testing.

Response to Comment A

MassDEP concurs with EPA's response to this comment (EPA number F.13) regarding PFAS. The EPA Response to Comments document is located at:
<https://www3.epa.gov/region1/npdes/chelseacreekfuelterminals/pdfs/2022/2022-crbpsf-rtc.pdf>.

MassDEP has modified the sampling for six PFAS compounds in the state permits to better align with the 2022 final EPA NPDES permits. The EPA NPDES permits state that "The monitoring requirement for the listed PFAS parameters takes effect during the first quarter following six months after receiving written notification of availability of the multi-laboratory validation of analytical test Method 1633 for the analysis of PFAS in wastewater and biosolids."

Additionally, EPA added language to their permits that states EPA will provide written notification to permittees when Method 1633 is available.

B. Comments from Christopher Gill, Gulf Oil Terminal, Chelsea, dated April 9, 2021

EPA Draft Permit, Part I.A.1 Table; MassDEP Draft Permit, Condition 6; and MassDEP Draft Clean Water Act (CWA) Section 401 Certification, Item 1.b – Per- and Polyfluoroalkyl Substances (PFAS):

- a) Gulf is concerned with a potential conflict in PFAS monitoring requirements between the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection's (MassDEP's) Draft Permits.
 - EPA's Draft Permit requires monitoring for PFAS parameters to take effect "six months after EPA's multi-lab validated method for wastewater is made

available to the public on EPA’s CWA methods program website.” [EPA Draft Permit, Part I.A.1 Table, Note 12]

- MassDEP’s Draft Permit and Draft Clean Water Act (CWA) Section 401 Certification requires the monitoring to be conducted using a method specified by MassDEP, if EPA’s method has not been published within 2 years of the effective date of the permit. [MassDEP Draft Permit, Condition 6; MassDEP Draft CWA Section 401 Certification, Item 1.b]

These separate requirements create the potential for the Terminal to be required to conduct the PFAS monitoring twice using different analytical methods, if EPA’s method is not finalized within 2 years of the permit effective date. This “double sampling” would be an undue burden on the Terminal. Therefore, Gulf requests that EPA and MassDEP coordinate their PFAS sampling requirements. MassDEP could remove their requirement to start sampling within 2 years of the permit effective date and mirror EPA’s requirement that PFAS monitoring will begin within 6 months after publication of EPA’s analytical method. Otherwise, EPA could include a statement that it will accept PFAS data collected using MassDEP’s method, if EPA’s method is not available within 2 years of the permit effective date.

- b) The EPA and MassDEP Draft Permits refer to the analysis for PFAS parameters taking effect six months after “EPA’s multi-lab validated method for wastewater is made available to the public on EPA’s CWA methods program website.” To avoid confusion, Gulf requests that this requirement be clarified by specifying that the monitoring is to begin after the final method for wastewater is made available to the public on the website.
- c) In the Draft Permits and the Draft CWA Section 401 Certification, the Sample Type for PFAS is stated as a 24-hour composite sample. Gulf request that this Sample Type be changed to Grab to be consistent with the Sample Type for all of the other analytical parameters required to be sampled.

Response to Comment B

Please refer to Response to Comment A. MassDEP has modified the PFAS sampling in the state permits to better align with the 2022 final EPA NPDES permits which require grab samples and not 24-hour composite samples.

C. David Fradette, Irving Oil Terminal, Revere, dated April 8, 2021

Per- and Polyfluoroalkyl Substances (PFAS)

The Draft MassDEP Permit includes conditions for Irving Oil to assess whether per- and polyfluoroalkyl substances (PFAS) discharges from the Facility are occurring, and whether the Permittee may be contributing to a violation of the narrative toxics criteria. Specifically, the Draft MassDEP Permit requires the Facility to monitor its discharges for PFAS using a '24-hour Composite' sample collection methodology.

The Permittee does not agree that a new sample collection methodology be introduced at this time, during a discovery period for substances without pre-established toxicity risk levels. The Facility discharge is not typically continuous for 24 hours and can be constrained by tidal flow, the presence of ships, and day-time hours.

Request: The Permittee requests that sampling methods be consistent with sampling practices for other monitored constituents that are collected as 'grab' samples during the first qualifying event.

Response to Comment C

Please refer to Response to Comment B.

D. John J. Frost, Sunoco Logistics Terminal, East Boston, dated April 11, 2021

PFAS

The Draft Permit prohibits "[d]ischarges of aqueous film-forming foam and alcohol resistant foam either in concentrate form or as foam diluted with water during testing or maintenance of the fires suppression system at the Facility's marine vessel dock"¹⁷ and, pursuant to its Section 308 information gathering authority, requires quarterly monitoring for six perfluorinated compounds in the facility's discharge.¹⁸

Sunoco tests the foam-based fire suppression system located at its load rack with water only. Water from the load rack area is pumped to and collected in two process water tanks, and the oily/water mixture in those tanks is shipped offsite for recycling. Fire suppression systems at the tanks are not subject to testing.

Based on these practices, barring a fire emergency in which a foam system is activated, there should be no opportunity for PFAS to enter the facility's discharge. As a result, Sunoco believes that the quarterly monitoring of its facility for PFAS compounds will not serve the purpose of the information request and respectfully requests that the monitoring provision in Section I.A.1 of the Draft Permit not be carried over into the final permit.

¹⁷ Draft Permit at Section I.B.2.i.

¹⁸ Draft Permit at Section I.A.1.

Response to Comment D

MassDEP is working towards gaining a better understanding of PFAS sources in the environment by requiring PFAS testing of various types of wastewater including stormwater from industrial sites. Information gathered from this effort will be evaluated along with data from land-applied residuals, ambient waters, drinking water, clean-up sites, and solid waste. Please also refer to Response to Comment A.

E. John Walkey, GreenRoots, dated April 9, 2021

[W]e wish to thank the EPA and MassDEP staff for their work on these draft permits and their efforts at ensuring an improved community input process under challenging conditions. There is always room for improvements, and those improvements are frequently limited by needed changes that must first occur to the system. We hope we have provided here some useful ideas for changes within the context of the system as it is, as well as some thoughts about larger systemic changes needed to ensure that equity and environmental justice are anticipated outcomes of future work.”

Response to Comment E

MassDEP acknowledges this comment.

F. Patrick Herron, Mystic River Watershed Association, April 9, 2021

We commend EPA and MassDEP for robust efforts at public engagement and alternative language access for the public hearings.

Response to Comment F

MassDEP acknowledges this comment.

**NOTICE OF APPEAL RIGHTS for
STATE SURFACE WATER DISCHARGE PERMIT**

Within 30 days of the issuance of MassDEP's decision to grant or deny a Surface Water Discharge Permit pursuant to M.G.L. c. 21, § 43, and 314 CMR 3.00, any person aggrieved may request an adjudicatory hearing.

How should the request for an adjudicatory hearing be made?

A request for an adjudicatory hearing for the state Surface Water Discharge Permit must be made during the 30-day period following issuance of the state permit, in accordance with 314 CMR 2.08 and 310 CMR 1.01. 310 CMR 1.01(6)(b) establishes the required form and content of the request. Failure to meet the requirements of 310 CMR 1.01 may result in dismissal of the request or the requirement to file a more definite statement.

A person filing a request for an adjudicatory hearing must complete and mail a MassDEP Fee Transmittal Form and send it with a valid check to the Commonwealth Master Lockbox, as instructed below, if a fee is required by 310 CMR 4.06. The MassDEP Fee Transmittal Form can be downloaded from:

<http://www.mass.gov/eea/agencies/massdep/service/approvals/transmittal-form-for-payment.html>.

The written notice requesting an adjudicatory hearing shall be delivered to MassDEP's Case Administrator together with (i) a photocopy of the decision being appealed, (ii) a photocopy of the completed MassDEP Fee Transmittal Form, if required, and (iii) a photocopy of the check used to pay any adjudicatory hearing filing fee due for the appeal under 310 CMR 4.06. The notice of claim must be made in writing and sent by email to Caseadmin.OADR@state.ma.us.

Please do *not* send the original of the completed MassDEP Fee Transmittal Form and check to the Case Administrator. Instead, please follow the instructions below for delivery of the original of the completed Fee Transmittal Form and check to the Commonwealth Master Lockbox.

A \$100 adjudicatory hearing filing fee must be paid, unless (i) a simplified hearing is requested for a reduced fee of \$25, (ii) the person requesting an adjudicatory hearing is a town, a municipal agency, a county or a municipal housing authority, in which case there is no fee, or (iii) the person requesting the hearing is seeking to have MassDEP waive the adjudicatory hearing filing fee because paying the fee will create an undue financial hardship.

A person who believes that payment of the fee would be an undue financial hardship shall file with the request for adjudicatory hearing a request for waiver of the fee together with an affidavit setting forth the facts the appellant believes constitute the undue financial hardship. For more information on the adjudicatory hearing filing fee and the grounds on which the Department may waive the fee, please see 310 CMR 4.06.

If a fee is required, the completed MassDEP Fee Transmittal Form and a valid check made payable to the Commonwealth of Massachusetts for the amount of the fee due must be mailed to:

Mass. Department of Environmental Protection
Commonwealth Master Lockbox
P.O. Box 4062
Boston, Massachusetts 02211

Failure to pay the adjudicatory hearing filing fee, if required, may be grounds for dismissal of the appeal.

In accordance with 314 CMR 2.08(5), any person, other than the permit applicant or permittee, who files a request for an adjudicatory hearing with the Department pursuant to 314 CMR 2.08(2) on an individual permit or general permit coverage, also shall simultaneously send a copy of the request by certified mail, return receipt requested, to the applicant or permittee. Any person who files a request for an adjudicatory hearing with the Department pursuant to 314 CMR 2.08(2) on a general permit also shall simultaneously send a copy of the request by certified mail, return receipt requested, to each permittee covered by the general permit.

Appendix B

SWPPP Annual Certifications

January 15, 2024

US Environmental Protection Agency
Region 1, Water Division
NPDES Applications Coordinator
R1NPDESReporting@epa.gov

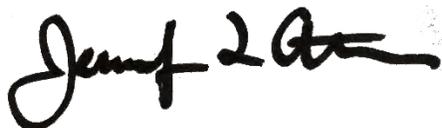
**Annual SWPPP Certification, NPDES Permit No. MA0001091
Gulf Oil Terminal, Chelsea, MA**

On behalf of Gulf Oil LP (Gulf), please find attached the Annual Stormwater Pollution Prevention Plan (SWPPP) Certification for their bulk petroleum terminal located at 281 Eastern Avenue in Chelsea, MA. The NPDES Permit for the Terminal (No. MA0001091) Part I.C.2.d requires the permittee to submit an Annual SWPPP Certification to the US Environmental Protection Agency by January 15 of the following year.

Also attached are the results of the evaluation of the integrity of the stormwater system, which is required to be submitted with the first Annual SWPPP Certification [Permit Part I.C.1.b(8)].

If you have any questions or require additional information, please contact Christopher Gill, Director Environmental, Safety & Occupational Health, Gulf Oil LP at 339-933-7046 or cgill@pikefuels.com or Jennifer Atkins of AECOM at 978-905-2112 or jennifer.atkins@aecom.com.

Yours sincerely,



Jennifer Atkins
Environmental Compliance Specialist
AECOM
E: jennifer.atkins@aecom.com

Attachments

Annual Stormwater Pollution Prevention Plan Certification

NPDES Permit No. MA0001091

In accordance with Part I.C.2.d of NPDES Permit No. MA0001091 for the Gulf Oil LP Terminal located at 281 Eastern Avenue in Chelsea, Massachusetts, I certify that, for calendar year 2023, the inspections, corrective actions, control measures, and training activities were conducted, results were recorded, and records were maintained, as described in the Terminal's Stormwater Pollution Prevention Plan (SWPPP).

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

Signature: 

Name: Christopher E. Gill

Title: Director ESOH

Date: 1/11/2024

ATTACHMENT

Project name:
Gulf Oil Chelsea, MA Terminal**Project ref:****To:**
Christopher Gill, Gulf Oil LP**From:**
Jennifer Atkins**CC:****Date:**
January 3, 2024

Memo

Subject: Results of Evaluation of Integrity of Stormwater System in Accordance with NPDES Permit No. MA0001091
Gulf Oil Terminal, Chelsea, Massachusetts

The NPDES Stormwater Permit for the Gulf Oil LP (Gulf) Terminal in Chelsea, MA (Permit No. MA0001091) requires an evaluation of the integrity of the stormwater conveyance system against infiltration of contaminated groundwater [Permit Part I.C.1.b(8)]. This evaluation must be completed within one year of the Permit effective date (by December 1, 2023) and the results must be documented in the first annual Stormwater Pollution Prevention Plan (SWPPP) certification to be submitted with the monthly Discharge Monitoring Report (DMR) due on January 15, 2024. This memo details the results of this evaluation.

The following elements were evaluated:

- One-time cross-connection evaluation, to ensure that the stormwater conveyance system does not contribute pollutants to or convey pollutants from a municipal separate storm sewer system (MS4) to the receiving water.
- A schedule for routine visual or video inspection of the readily accessible portions of the stormwater system installed below grade.
- Measurement of the flow rate, and flow direction of known areas of groundwater contamination.
- Sampling of MtBE [methyl-tert-butyl ether] at groundwater monitoring points representative of groundwater conditions at the Facility, including known areas of contamination, collected during dry weather absent of tidal influence.
- Sampling of MtBE at accumulation points within the stormwater system that are likely susceptible to groundwater infiltration, including points located in known areas of contamination, collected during dry weather absent of tidal influence in addition to routine MtBE monitoring at Outfall 003 as required in Part I.A.1.

Evaluation Results

A City of Chelsea combined sewer overflow (CSO) pipe runs from Eastern Avenue to the Chelsea River near the loading rack and terminal office, as shown on Figure 1. No connections have been observed between the Terminal's stormwater system and the City's CSO. In addition, the video inspection in 2017 discussed below did not reveal any connections with the combined sewer. No work has been performed on the Terminal's stormwater system since 2017, which could have potentially lead to a cross connection with the City system.

In 2017 AECOM hired a subcontractor to perform a closed-circuit television (CCTV) inspection of the accessible parts of the stormwater system. The 2017 CCTV inspection report was reviewed for this work, and it was noted that the two areas identified with active infiltration in 2017 are not located in areas with MtBE groundwater impacts.

The Permit requires the use of MtBE as an indicator of potential groundwater infiltration to the stormwater system. This chemical has not been used in petroleum products in the United States since around 2005; therefore, if there was the presence of MtBE in the stormwater system, it could be attributed to infiltration of impacted groundwater to the system.

Chevron Environmental Management Company (Chevron – former owner of the Terminal) conducts routine groundwater monitoring at the Terminal under the Massachusetts Contingency Plan (MCP). Gulf also conducted groundwater monitoring in the past under the MCP. Monitoring reports issued by both Gulf and Chevron were used to determine the areas of MtBE impacts to the groundwater at the Terminal. Figure 1 shows three areas of MtBE impacts in groundwater.

The first location of historical MtBE impacts is located around the southern portion of the loading rack. A second location of historical MtBE impacts is around the two baffle tanks upstream of Lift Station 1 (off the southeast corner of the Tank 101/102 containment area). Finally, the third location of historical MtBE impacts is around the dock drainage pump vault; however, this area was excavated as part of upgrades to the bulkhead in 2015/2016 so it is reasonable to infer that the MtBE impacts in that area have been reduced and may not be representative of historical concentration levels.

Groundwater elevation contour maps from the Gulf and Chevron reports were also reviewed. At low tide, groundwater flow in the area of the loading rack and Lift Station 1 is generally to the northeast towards the Chelsea River. Depth to water is typically around 1 to 5 feet below grade.

On November 16, 2023, stormwater samples were collected from two locations: 1) the catch basin south of the loading rack before the truck rack (Sample ID CB-1), and 2) the catch basin north of Lift Station #1 (Sample ID CB-2). A third sample was collected from the Lower Basin of the stormwater retention pond (Sample ID Pond-2). These locations are shown on Figure 1. Note that the two catch basins at the loading rack within the area of MtBE groundwater impacts, were dry at the time of sampling.

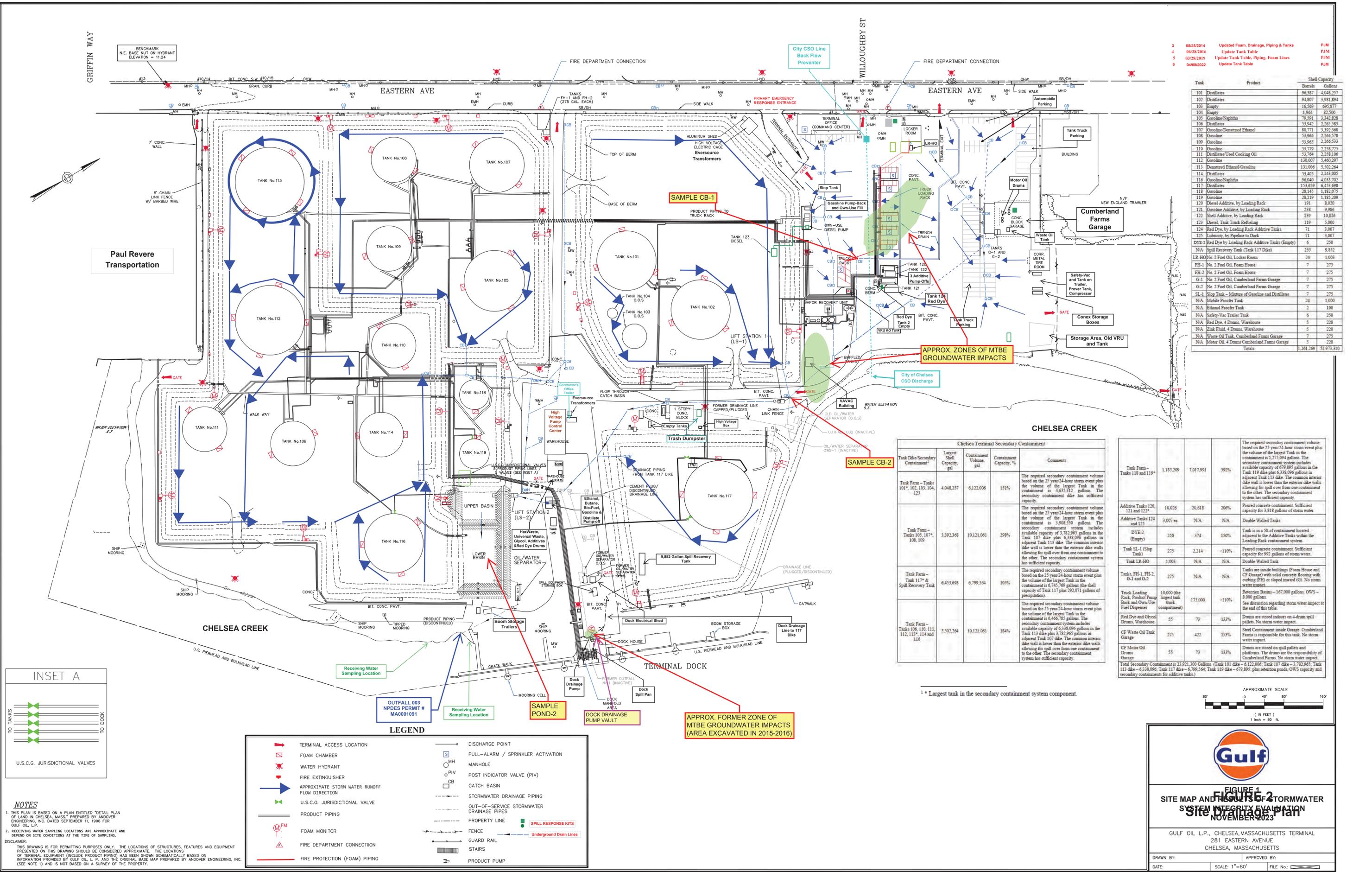
The samples were collected during the “wet season” when groundwater elevations are high, but after a period of dry weather, so that the stormwater sampled was more likely to be groundwater (if there is infiltration). The samples were collected either using a dedicated or disposable bailer, and were sent to Phoenix Analytical Laboratories, Inc. in Manchester, CT for analysis of MtBE by EPA Method 624.1. The laboratory report is included in Attachment A. Because recent groundwater MtBE data was available, additional groundwater samples were not collected as part of this evaluation.

The results from this sampling are shown in the table below:

Sample ID	MtBE (µg/L)
CB-1	1.7
CB-2	<1.0
POND-2	<1.0

The MtBE results from the stormwater sample collected from CB-1, south of loading rack, indicates the potential for groundwater infiltration to the stormwater system in this area. However, this result for CB-1 was low (1.7 µg/L). MtBE was not detected in the sample collected from CB-2 indicating that groundwater infiltration does not appear to be occurring in this area. The result from the Lower Basin of the stormwater retention pond was also non-detect. Also, under the NPDES Permit, the Terminal samples the effluent at Outfall 003 at least quarterly for MtBE, and it has only been detected once at an estimated concentration of 0.2 µg/L in March 2015. The long run of non-detect results at the Outfall indicates that, even if there is minor groundwater infiltration to the stormwater system at the loading rack area, it is not causing a measurable impact on the quality stormwater being discharged by the Terminal.

In 2024, Gulf plans to continue investigation of the stormwater system around the loading rack and may collect additional samples for MtBE, to identify potential locations of groundwater infiltration to the stormwater system. The results of any additional investigations would be included with the annual SWPPP certification due in January 2025.



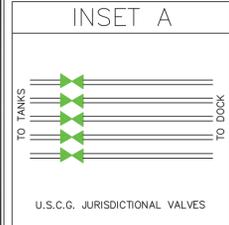
- 3 05/25/2014 Updated Form, Drainage, Piping & Tanks PJM
- 4 06/20/2016 Update Tank Table PJM
- 5 03/28/2019 Update Tank Table, Piping, Foam Lines PJM
- 6 04/08/2022 Update Tank Table PJM

Tank	Product	Barrels	Gallons
101	Dilutants	96,387	4,048,257
102	Dilutants	94,807	3,981,894
103	Emphy	16,569	695,877
104	Emphy	1,964	83,500
105	Gasoline/Naphtha	73,591	3,342,838
106	Dilutants	53,942	2,265,583
107	Gasoline/Denatured Ethanol	80,771	3,392,368
108	Gasoline	53,966	2,266,578
109	Gasoline	53,965	2,266,533
110	Gasoline	53,729	2,258,725
111	Dilutants/Used Cooking Oil	53,764	2,258,106
112	Gasoline	130,007	5,460,297
113	Denatured Ethanol/Gasoline	131,006	5,502,264
114	Dilutants	53,405	2,243,005
116	Gasoline/Naphtha	96,040	4,033,702
117	Dilutants	133,659	6,433,698
118	Gasoline	28,145	1,182,075
119	Gasoline	28,219	1,185,309
120	Diesel Additive, by Loading Rack	191	8,020
121	Gasoline Additive, by Loading Rack	738	9,986
122	Shell Additive, by Loading Rack	739	10,028
123	Diesel, Tank Truck Refueling	119	5,000
124	Red Dye, by Loading Rack Additive Tanks	71	3,007
125	Lubricity, by Pipeline to Dock	71	3,007
DYE-2	Red Dye, by Loading Rack Additive Tanks (Empty)	6	250
N/A	Spill Recovery Tank (Tank 117 Dike)	335	9,853
LR-HO No. 2	Fuel Oil Locker Room	24	1,003
FH-1 No. 2	Fuel Oil, Foam House	7	275
FH-2 No. 2	Fuel Oil, Foam House	7	275
G-1 No. 2	Fuel Oil, Cumberland Farms Garage	7	275
G-2 No. 2	Fuel Oil, Cumberland Farms Garage	7	275
SL-1	Slop Tank - Mixture of Gasoline and Dilutants	7	275
N/A	Mobile Puffer Tank	24	1,000
N/A	Ethanol Puffer Tank	2	100
N/A	Safety-Vac Trailer Tank	6	250
N/A	Red Dye, 4 Drums, Warehouse	5	220
N/A	Zink Fluid, 4 Drums, Warehouse	5	220
N/A	Waste Oil Tank, Cumberland Farms Garage	7	275
N/A	Motor Oil, 4 Drums Cumberland Farms Garage	5	220
Totals		1,261,269	52,973,310

Chelsea Terminal Secondary Containment				
Tank Dike/Secondary Containment ¹	Largest Shell Capacity, gal	Containment Volume, gal	Containment Capacity, %	Comments
Tank Farm - Tanks 101*, 102, 103, 104, 123	4,048,257	6,122,006	151%	The required secondary containment volume based on the 25 year/24-hour storm event plus the volume of the largest Tank in the containment is 4,635,312 gallons. The secondary containment dike has sufficient capacity.
Tank Farm - Tanks 107, 108, 109	3,392,368	10,121,061	298%	The required secondary containment volume based on the 25 year/24-hour storm event plus the volume of the largest Tank in the containment is 3,908,550 gallons. The secondary containment system includes available capacity of 3,782,065 gallons in the Tank 119 dike plus 6,338,096 gallons in adjacent Tank 113 dike. The common interior dike wall is lower than the exterior dike walls allowing for spill over from one containment to the other. The secondary containment system has sufficient capacity.
Tank Farm - Tank 117* & Spill Recovery Tank	6,453,698	6,799,564	105%	The required secondary containment volume based on the 25 year/24-hour storm event plus the volume of the largest Tank in the containment is 6,745,769 gallons (the shell capacity of Tank 117 plus 292,071 gallons of precipitation).
Tank Farm - Tanks 110, 111, 112, 113*, 114 and 116	5,302,264	10,121,061	184%	The required secondary containment volume based on the 25 year/24-hour storm event plus the volume of the largest Tank in the containment is 6,466,785 gallons. The secondary containment system includes available capacity of 6,338,096 gallons in the Tank 113 dike plus 3,782,965 gallons in adjacent Tank 107 dike. The common interior dike wall is lower than the exterior dike walls allowing for spill over from one containment to the other. The secondary containment system has sufficient capacity.

Tank Farm - Tanks 118 and 119*	1,185,209	7,017,991	592%	The required secondary containment volume based on the 25 year/24-hour storm event plus the volume of the largest Tank in the containment is 1,275,064 gallons. The secondary containment system includes available capacity of 6,745,853 gallons in the Tank 119 dike plus 6,338,096 gallons in adjacent Tank 113 dike. The common interior dike wall is lower than the exterior dike walls allowing for spill over from one containment to the other. The secondary containment system has sufficient capacity.
Additive Tanks 120, 121 and 122*	10,026	30,618	206%	Poured concrete containment. Sufficient capacity for 3,818 gallons of storm water.
Additive Tanks 124 and 125	3,007 ea.	N/A	N/A	Double Walled Tanks
DYE-2 (Empty)	250	374	150%	Tank is in a 50-cf containment located adjacent to the Additive Tanks within the Loading Rack containment system.
Tank SL-1 (Slop Tank)	275	2,214	>110%	Poured concrete containment. Sufficient capacity for 292 gallons of storm water.
Tank LR-HO	1,003	N/A	N/A	Double Walled Tank
Tanks FH-1, FH-2, G-1 and G-2	275	N/A	N/A	Tanks are inside buildings (Foam House and CF Garage) with solid concrete flooring with curb (FH) or sloped inward (G). No storm water impact.
Truck Loading Rack, Product Pump Back and On-Use Fuel Dispenser	10,000 (the largest tank truck compartment)	175,000	>110%	Retention Basins - 167,000 gallons OWS - 8,000 gallons. See discussion regarding storm water impact at the end of this table.
Red Dye and Glycol Drums, Warehouse	55	73	133%	Drums are stored indoors on 4-drum spill pallets. No storm water impact.
CF Waste Oil Tank Garage	275	422	153%	Steel Containment inside Garage. Cumberland Farms is responsible for this tank. No storm water impact.
CF Motor Oil Drums Garage	55	73	133%	Drums are stored on spill pallets and platform. The drums are the responsibility of Cumberland Farms. No storm water impact.

¹ * Largest tank in the secondary containment system component.



NOTES

- THIS PLAN IS BASED ON A PLAN ENTITLED "DETAIL PLAN OF LAND IN CHELSEA, MASS." PREPARED BY ANDOVER ENGINEERING, INC. DATED SEPTEMBER 11, 1996 FOR GULF OIL, L.P.
- RECEIVING WATER SAMPLING LOCATIONS ARE APPROXIMATE AND DEPEND ON SITE CONDITIONS AT THE TIME OF SAMPLING.

DISCLAIMER:
THIS DRAWING IS FOR PERMITTING PURPOSES ONLY. THE LOCATIONS OF STRUCTURES, FEATURES AND EQUIPMENT PRESENTED ON THIS DRAWING SHOULD BE CONSIDERED APPROXIMATE. THE LOCATIONS OF TERMINAL EQUIPMENT (INCLUDE PRODUCT PIPING) HAS BEEN SHOWN SCHEMATICALLY BASED ON INFORMATION PROVIDED BY GULF OIL, L.P. AND THE ORIGINAL BASE MAP PREPARED BY ANDOVER ENGINEERING, INC. (SEE NOTE 1) AND IS NOT BASED ON A SURVEY OF THE PROPERTY.

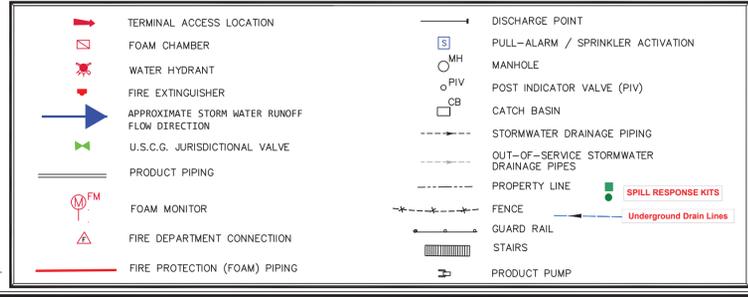


FIGURE 1
FIGURE 2

SITE MAP AND RESULT OF STORMWATER SYSTEM INTEGRITY EVALUATION
NOVEMBER 2023

GULF OIL L.P., CHELSEA, MASSACHUSETTS TERMINAL
281 EASTERN AVENUE
CHELSEA, MASSACHUSETTS

DRAWN BY: _____ APPROVED BY: _____
DATE: _____ SCALE: 1"=80' FILE No.: _____

ATTACHMENT A



Monday, November 20, 2023

Attn: Scottie McGowan
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Project ID: GULF CHELSEA TERMINAL
SDG ID: GCP50351
Sample ID#s: CP50351 - CP50354

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style with a large initial "P".

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

November 20, 2023

SDG I.D.: GCP50351

Project ID: GULF CHELSEA TERMINAL

Client Id	Lab Id	Matrix
CB-1	CP50351	SW DISCHARGE
CB-2	CP50352	SW DISCHARGE
POND-2	CP50353	SW DISCHARGE
TRIP BLANK	CP50354	SW DISCHARGE



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn: Scottie McGowan
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Sample Information

Matrix: SW DISCHARGE
Location Code: AECOM-CHELSEA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: B
Analyzed by: see "By" below

Date

11/16/23
11/17/23

Time

13:50
14:05

Laboratory Data

SDG ID: GCP50351
Phoenix ID: CP50351

Project ID: GULF CHELSEA TERMINAL
Client ID: CB-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	1.7	1.0	ug/L	1	11/18/23	HM	E624.1

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

November 20, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn: Scottie McGowan
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Sample Information

Matrix: SW DISCHARGE
Location Code: AECOM-CHELSEA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: B
Analyzed by: see "By" below

Date

11/16/23
11/17/23

Time

14:10
14:05

Laboratory Data

SDG ID: GCP50351
Phoenix ID: CP50352

Project ID: GULF CHELSEA TERMINAL
Client ID: CB-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/18/23	HM	E624.1

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

November 20, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn: Scottie McGowan
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Sample Information

Matrix: SW DISCHARGE
Location Code: AECOM-CHELSEA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: B
Analyzed by: see "By" below

Date

11/16/23
11/17/23

Time

14:30
14:05

Laboratory Data

SDG ID: GCP50351
Phoenix ID: CP50353

Project ID: GULF CHELSEA TERMINAL
Client ID: POND-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/18/23	HM	E624.1

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

November 20, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn: Scottie McGowan
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Sample Information

Matrix: SW DISCHARGE
Location Code: AECOM-CHELSEA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: B
Analyzed by: see "By" below

Date

11/16/23
11/17/23

Time

8:00
14:05

Laboratory Data

SDG ID: GCP50351
Phoenix ID: CP50354

Project ID: GULF CHELSEA TERMINAL
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/18/23	HM	E624.1

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

TRIP BLANK INCLUDED.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

November 20, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102

QA/QC Report

November 20, 2023

QA/QC Data

SDG I.D.: GCP50351

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 706992 (ug/L), QC Sample No: CP50493 (CP50351, CP50352, CP50353, CP50354)										
<u>Volatiles</u>										
Methyl t-butyl ether (MTBE)	ND	1.0	105	99	5.9	98	103	5.0	70 - 130	30

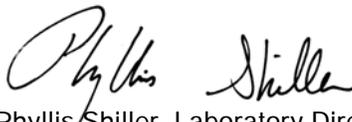
Comment:

A blank MS/MSD was analyzed with this batch.

Additional VOA Criteria: The 624 recovery criteria for the MS is different than the LCS, which is reported above.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference


 Phyllis Shiller, Laboratory Director
 November 20, 2023

Monday, November 20, 2023

Criteria: None

State: MA

Sample Criteria Exceedances Report

GCP50351 - AECOM-CHELSEA

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----------------	-------------------

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Comments

November 20, 2023

SDG I.D.: GCP50351

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

Appendix C

Spill History

The Terminal's is required to list significant spills (i.e., reportable quantities) that occurred at the Terminal within the three years prior to the date this Plan was prepared or amended (August 2024).

Date of Spill	Product Spilled	Amount Spilled	Amount in Navigable Waters	Capacity of Tank or Impoundment
2/4/2022	Gasoline Additive	950 gallons	0	10,026 (Tank)
Specific Location/Source of Spill and Cause		How was Spill Detected	Clean-up Actions Taken	
Loading Rack Additive Tank Area, Tank 122 valve leak, Containment drainage valve previously broken off during snow plowing, gasoline additive flowed out of containment to Terminal's drainage system. NRC #1328056 MassDEP RTN #3-0037124		Gulf Employee in the course of normal work activities	Gulf Employees & Moran Enviro. Absorbents used. Concrete Containment, Rack Trench Drains and Separators were cleaned, Appx 16,579 gallons of water/additive mix removed via vac truck + absorbents	
Steps Taken to Reduce Possibility of Recurrence		Enforcement Actions		
Tank valve and containment drainage valve repaired.		MassDEP issued a Consent Order (Enforcement # 00013124) for failure to properly notify the DEP of a release to the environment and for conducting immediate response actions without the approval of the DEP.		
Effectiveness & Size of Containment		Effectiveness of Monitoring Equipment		
Secondary containment (20,618 gallons) was breached. Spill contained in Terminal's drainage system.		N/A		

Date of Spill	Product Spilled	Amount Spilled	Amount in Navigable Waters	Capacity of Tank or Impoundment
8/11/2024	Diesel Fuel	15 gallons	0	5,000 (AST)
Specific Location/Source of Spill and Cause		How was Spill Detected	Clean-up Actions Taken	
<p>Tank Farm Dike Area, Leak from welded joint at bottom of diesel refueling AST within the second containment dike of Tank 102.</p> <p>MassDEP RTN #3-50628</p>		<p>Global Employee in the course of normal work activities</p>	<p>Moran Enviro. emptied the AST via vacuum truck and skimmed product from the stormwater within the tank containment dike and placed absorbent booms within drainage swales. Absorbent material placed underneath leaking AST and surface stormwater channels going to pump station gate valve. Four 55-gallon drums of spent absorbent material and approximately 732 gallons of water/diesel removed via vac truck.</p>	
Steps Taken to Reduce Possibility of Recurrence		Enforcement Actions		
<p>A double-walled tank with interstitial space monitoring was installed to replace the original tank.</p>		<p>AECOM prepared a Permanent Solution Statement (PSS) with No Conditions on behalf of Global on October 10, 2024 to address MassDEP RTN #3-50628</p>		
Effectiveness & Size of Containment		Effectiveness of Monitoring Equipment		
<p>Secondary containment was not breached.</p>		<p>N/A</p>		

Appendix D

Incident Worksheet

Complete all portions of the form. This form will assist you in determining a proper response to the incident and should be completed as soon as possible following the detection of an incident.

This form should be completed for any emergency spill. Retain a copy of this form for records.

1.) In case of *immediate hazard*, call 911.

2.) Briefly describe the Source of Release: (Please put the full description put on Page 2.)

3.) Notifications: Notify one of the Qualified Individuals below. Call in the order presented until someone is reached.

QI	Pho ne	Person Contacted / Notes	Date	Time
<input type="checkbox"/> Andrew Adams	207-432-2583 (Cell) 617-884-5980 Ext. 110 (Terminal)			
<input type="checkbox"/> Paul LaValle	203-947-6056 (Cell) 203-576-1492 (Terminal)			
<input type="checkbox"/> Tom Keefe	781-983-0365 (Cell) 781-398-4132 (Waltham Office)			
<input type="checkbox"/> Eric Davis	781-296-0883 (Cell) 617-660-1116 (Terminal)			

Notify each of following agencies as instructed by Qualified Individual (QI):

Notifications	Phone	Person Contacted/Notes	Date	Time
<input type="checkbox"/> Chelsea Fire Dept.	617-466-4600	Only if 911 wasn't called.		
<input type="checkbox"/> Moran Env. Recovery Inc. (OSRO)	888-233-5338	If spill cleanup is needed		
<input type="checkbox"/> Clean Harbors (OSRO)(if additional OSRO needed)	701-803-4100 800-645-8265	If spill cleanup is needed		
<input type="checkbox"/> NRC (US Ecology) (OSRO for Small/Medium/WCD)	877-880-4672 (24-hr)			
<input type="checkbox"/> Mass DEP Spill Report Line	888-304-1133 (24-hr)			
<input type="checkbox"/> USCG Sector Boston Command Center	883-449-0539	if release or threat of release to waterway.		
<input type="checkbox"/> Boston Line & Service Company	617-951-9957	if boom deployment is necessary in the water		
<input type="checkbox"/> National Response Center (NRC)	800-424-8802	Refer to Spill Form in Plan		
<input type="checkbox"/> US EPA	617-918-1236			
<input type="checkbox"/> Other				

Appendix E

Stormwater System Integrity Testing Records

Project name:
Gulf Oil Chelsea, MA Terminal**Project ref:****To:**
Christopher Gill, Gulf Oil LP**From:**
Jennifer Atkins**CC:****Date:**
January 3, 2024

Memo

Subject: Results of Evaluation of Integrity of Stormwater System in Accordance with NPDES Permit No. MA0001091
Gulf Oil Terminal, Chelsea, Massachusetts

The NPDES Stormwater Permit for the Gulf Oil LP (Gulf) Terminal in Chelsea, MA (Permit No. MA0001091) requires an evaluation of the integrity of the stormwater conveyance system against infiltration of contaminated groundwater [Permit Part I.C.1.b(8)]. This evaluation must be completed within one year of the Permit effective date (by December 1, 2023) and the results must be documented in the first annual Stormwater Pollution Prevention Plan (SWPPP) certification to be submitted with the monthly Discharge Monitoring Report (DMR) due on January 15, 2024. This memo details the results of this evaluation.

The following elements were evaluated:

- One-time cross-connection evaluation, to ensure that the stormwater conveyance system does not contribute pollutants to or convey pollutants from a municipal separate storm sewer system (MS4) to the receiving water.
- A schedule for routine visual or video inspection of the readily accessible portions of the stormwater system installed below grade.
- Measurement of the flow rate, and flow direction of known areas of groundwater contamination.
- Sampling of MtBE [methyl-tert-butyl ether] at groundwater monitoring points representative of groundwater conditions at the Facility, including known areas of contamination, collected during dry weather absent of tidal influence.
- Sampling of MtBE at accumulation points within the stormwater system that are likely susceptible to groundwater infiltration, including points located in known areas of contamination, collected during dry weather absent of tidal influence in addition to routine MtBE monitoring at Outfall 003 as required in Part I.A.1.

Evaluation Results

A City of Chelsea combined sewer overflow (CSO) pipe runs from Eastern Avenue to the Chelsea River near the loading rack and terminal office, as shown on Figure 1. No connections have been observed between the Terminal's stormwater system and the City's CSO. In addition, the video inspection in 2017 discussed below did not reveal any connections with the combined sewer. No work has been performed on the Terminal's stormwater system since 2017, which could have potentially lead to a cross connection with the City system.

In 2017 AECOM hired a subcontractor to perform a closed-circuit television (CCTV) inspection of the accessible parts of the stormwater system. The 2017 CCTV inspection report was reviewed for this work, and it was noted that the two areas identified with active infiltration in 2017 are not located in areas with MtBE groundwater impacts.

The Permit requires the use of MtBE as an indicator of potential groundwater infiltration to the stormwater system. This chemical has not been used in petroleum products in the United States since around 2005; therefore, if there was the presence of MtBE in the stormwater system, it could be attributed to infiltration of impacted groundwater to the system.

Chevron Environmental Management Company (Chevron – former owner of the Terminal) conducts routine groundwater monitoring at the Terminal under the Massachusetts Contingency Plan (MCP). Gulf also conducted groundwater monitoring in the past under the MCP. Monitoring reports issued by both Gulf and Chevron were used to determine the areas of MtBE impacts to the groundwater at the Terminal. Figure 1 shows three areas of MtBE impacts in groundwater.

The first location of historical MtBE impacts is located around the southern portion of the loading rack. A second location of historical MtBE impacts is around the two baffle tanks upstream of Lift Station 1 (off the southeast corner of the Tank 101/102 containment area). Finally, the third location of historical MtBE impacts is around the dock drainage pump vault; however, this area was excavated as part of upgrades to the bulkhead in 2015/2016 so it is reasonable to infer that the MtBE impacts in that area have been reduced and may not be representative of historical concentration levels.

Groundwater elevation contour maps from the Gulf and Chevron reports were also reviewed. At low tide, groundwater flow in the area of the loading rack and Lift Station 1 is generally to the northeast towards the Chelsea River. Depth to water is typically around 1 to 5 feet below grade.

On November 16, 2023, stormwater samples were collected from two locations: 1) the catch basin south of the loading rack before the truck rack (Sample ID CB-1), and 2) the catch basin north of Lift Station #1 (Sample ID CB-2). A third sample was collected from the Lower Basin of the stormwater retention pond (Sample ID Pond-2). These locations are shown on Figure 1. Note that the two catch basins at the loading rack within the area of MtBE groundwater impacts, were dry at the time of sampling.

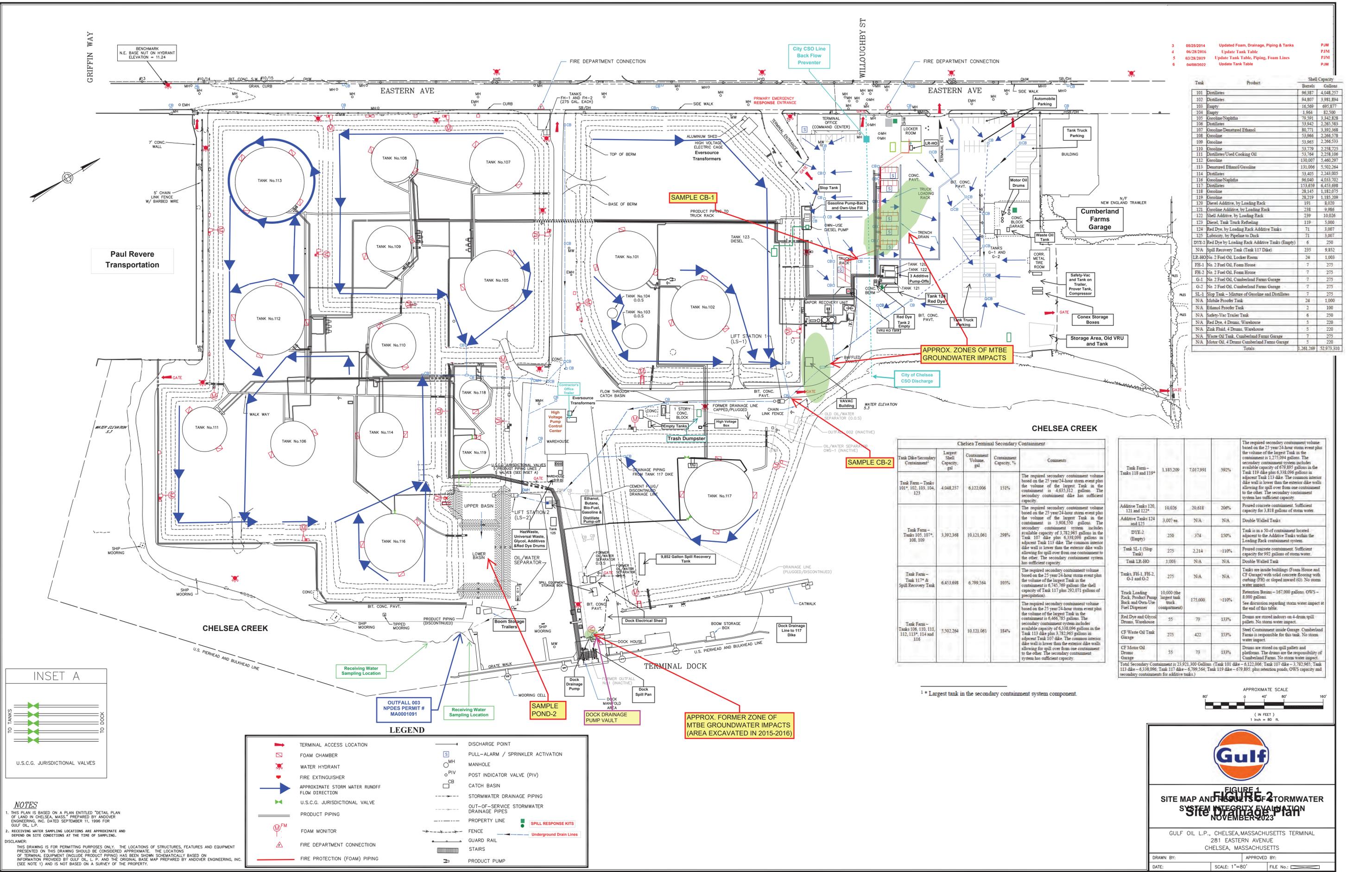
The samples were collected during the “wet season” when groundwater elevations are high, but after a period of dry weather, so that the stormwater sampled was more likely to be groundwater (if there is infiltration). The samples were collected either using a dedicated or disposable bailer, and were sent to Phoenix Analytical Laboratories, Inc. in Manchester, CT for analysis of MtBE by EPA Method 624.1. The laboratory report is included in Attachment A. Because recent groundwater MtBE data was available, additional groundwater samples were not collected as part of this evaluation.

The results from this sampling are shown in the table below:

Sample ID	MtBE (µg/L)
CB-1	1.7
CB-2	<1.0
POND-2	<1.0

The MtBE results from the stormwater sample collected from CB-1, south of loading rack, indicates the potential for groundwater infiltration to the stormwater system in this area. However, this result for CB-1 was low (1.7 µg/L). MtBE was not detected in the sample collected from CB-2 indicating that groundwater infiltration does not appear to be occurring in this area. The result from the Lower Basin of the stormwater retention pond was also non-detect. Also, under the NPDES Permit, the Terminal samples the effluent at Outfall 003 at least quarterly for MtBE, and it has only been detected once at an estimated concentration of 0.2 µg/L in March 2015. The long run of non-detect results at the Outfall indicates that, even if there is minor groundwater infiltration to the stormwater system at the loading rack area, it is not causing a measurable impact on the quality stormwater being discharged by the Terminal.

In 2024, Gulf plans to continue investigation of the stormwater system around the loading rack and may collect additional samples for MtBE, to identify potential locations of groundwater infiltration to the stormwater system. The results of any additional investigations would be included with the annual SWPPP certification due in January 2025.



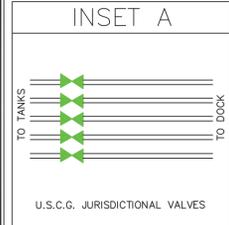
- 3 05/25/2014 Updated Form, Drainage, Piping & Tanks PJM
- 4 06/20/2016 Update Tank Table PJM
- 5 03/28/2019 Update Tank Table, Piping, Foam Lines PJM
- 6 04/08/2022 Update Tank Table PJM

Tank	Product	Barrels	Gallons
101	Dilutants	96,387	4,048,257
102	Dilutants	94,807	3,981,894
103	Emphy	16,569	695,877
104	Emphy	1,964	83,500
105	Gasoline/Naphtha	73,591	3,342,838
106	Dilutants	53,942	2,265,583
107	Gasoline/Denatured Ethanol	80,771	3,392,368
108	Gasoline	53,966	2,266,578
109	Gasoline	53,965	2,266,533
110	Gasoline	53,729	2,258,725
111	Dilutants/Used Cooking Oil	53,764	2,258,106
112	Gasoline	130,007	5,460,297
113	Denatured Ethanol/Gasoline	131,006	5,502,264
114	Dilutants	53,405	2,243,005
116	Gasoline/Naphtha	96,040	4,033,702
117	Dilutants	133,659	5,433,698
118	Gasoline	28,145	1,182,075
119	Gasoline	28,219	1,185,309
120	Diesel Additive, by Loading Rack	191	8,020
121	Gasoline Additive, by Loading Rack	738	9,986
122	Shell Additive, by Loading Rack	739	10,028
123	Diesel, Tank Truck Refueling	119	5,000
124	Red Dye by Loading Rack Additive Tanks	71	3,007
125	Lubricity, by Pipeline to Dock	71	3,007
DYE-2	Red Dye by Loading Rack Additive Tanks (Empty)	6	250
N/A	Spill Recovery Tank (Tank 117 Dike)	335	9,852
LR-HO	No. 2 Fuel Oil Locker Room	24	1,003
FH-1	No. 2 Fuel Oil, Foam House	7	275
FH-2	No. 2 Fuel Oil, Foam House	7	275
G-1	No. 2 Fuel Oil, Cumberland Farms Garage	7	275
G-2	No. 2 Fuel Oil, Cumberland Farms Garage	7	275
SL-1	Slop Tank - Mixture of Gasoline and Dilutants	7	275
N/A	Mobile Puffer Tank	24	1,000
N/A	Ethanol Puffer Tank	2	100
N/A	Safety-Vac Trailer Tank	6	250
N/A	Red Dye - 4 Drums, Warehouse	5	220
N/A	Zink Fluid, 4 Drums, Warehouse	5	220
N/A	Waste Oil Tank, Cumberland Farms Garage	7	275
N/A	Motor Oil, 4 Drums Cumberland Farms Garage	5	220
Totals		1,261,269	52,973,310

Chelsea Terminal Secondary Containment			
Tank Dike/Secondary Containment ¹	Largest Shell Capacity, gal	Containment Volume, gal	Containment Capacity, %
Tank Farm - Tanks 101*, 102, 103, 104, 123	4,048,257	6,122,006	151%
Tank Farm - Tanks 107, 108, 109	3,392,368	10,121,061	298%
Tank Farm - Tank 117* & Spill Recovery Tank	6,453,698	6,799,564	105%
Tank Farm - Tanks 110, 111, 112, 113*, 114 and 116	5,302,264	10,121,061	184%

Tank Farm - Tanks 118 and 119*	1,185,209	7,017,991	592%	The required secondary containment volume based on the 25 year/24-hour storm event plus the volume of the largest Tank in the containment is 1,275,004 gallons. The secondary containment system includes available capacity of 679,895 gallons in the Tank 119 dike plus 6,338,096 gallons in adjacent Tank 113 dike. The common interior dike wall is lower than the exterior dike walls allowing for spill over from one containment to the other. The secondary containment system has sufficient capacity.
Additive Tanks 120, 121 and 122*	10,026	30,618	206%	Poured concrete containment. Sufficient capacity for 3,818 gallons of storm water.
Additive Tanks 124 and 125	3,007 ea.	N/A	N/A	Double Walled Tanks
DYE-2 (Empty)	250	374	150%	Tank is in a 50-cf containment located adjacent to the Additive Tanks within the Loading Rack containment system.
Tank SL-1 (Slop Tank)	275	2,214	>110%	Poured concrete containment. Sufficient capacity for 292 gallons of storm water.
Tank LR-HO	1,003	N/A	N/A	Double Walled Tank
Tanks FH-1, FH-2, G-1 and G-2	275	N/A	N/A	Tanks are inside buildings (Foam House and CF Garage) with solid concrete flooring with curb (FH) or sloped inward (G). No storm water impact.
Truck Loading Rack, Product Pump Back and On-Use Fuel Dispenser	10,000 (the largest tank truck compartment)	175,000	>110%	Retention Basins - 167,000 gallons OWS - 8,000 gallons. See discussion regarding storm water impact at the end of this table.
Red Dye and Glycol Drums, Warehouse	55	73	133%	Drums are stored indoors on 4-drum spill pallets. No storm water impact.
CF Waste Oil Tank Garage	275	422	153%	Steel Containment inside Garage. Cumberland Farms is responsible for this tank. No storm water impact.
CF Motor Oil Drums Garage	55	73	133%	Drums are stored on spill pallets and platform. The drums are the responsibility of Cumberland Farms. No storm water impact.

¹ * Largest tank in the secondary containment system component.



NOTES

- THIS PLAN IS BASED ON A PLAN ENTITLED "DETAIL PLAN OF LAND IN CHELSEA, MASS." PREPARED BY ANDOVER ENGINEERING, INC. DATED SEPTEMBER 11, 1996 FOR GULF OIL, L.P.
- RECEIVING WATER SAMPLING LOCATIONS ARE APPROXIMATE AND DEPEND ON SITE CONDITIONS AT THE TIME OF SAMPLING.

DISCLAIMER:
THIS DRAWING IS FOR PERMITTING PURPOSES ONLY. THE LOCATIONS OF STRUCTURES, FEATURES AND EQUIPMENT PRESENTED ON THIS DRAWING SHOULD BE CONSIDERED APPROXIMATE. THE LOCATIONS OF TERMINAL EQUIPMENT (INCLUDE PRODUCT PIPING) HAS BEEN SHOWN SCHEMATICALLY BASED ON INFORMATION PROVIDED BY GULF OIL, L.P. AND THE ORIGINAL BASE MAP PREPARED BY ANDOVER ENGINEERING, INC. (SEE NOTE 1) AND IS NOT BASED ON A SURVEY OF THE PROPERTY.

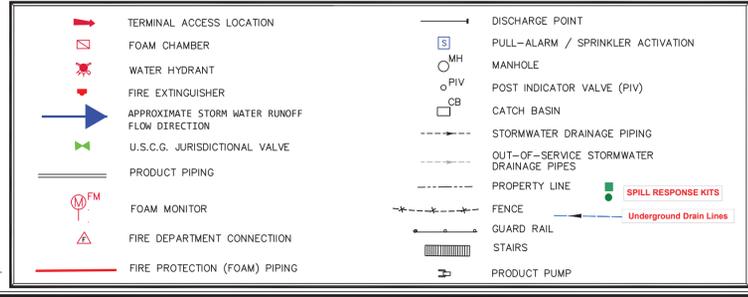


FIGURE 1
FIGURE 2

SITE MAP AND RESULT OF STORMWATER SYSTEM INTEGRITY EVALUATION
NOVEMBER 2023

GULF OIL L.P., CHELSEA, MASSACHUSETTS TERMINAL
281 EASTERN AVENUE
CHELSEA, MASSACHUSETTS

DRAWN BY: _____ APPROVED BY: _____
DATE: _____ SCALE: 1"=80' FILE No.: _____

ATTACHMENT A



Monday, November 20, 2023

Attn: Scottie McGowan
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Project ID: GULF CHELSEA TERMINAL
SDG ID: GCP50351
Sample ID#s: CP50351 - CP50354

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style with a large initial "P".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

November 20, 2023

SDG I.D.: GCP50351

Project ID: GULF CHELSEA TERMINAL

Client Id	Lab Id	Matrix
CB-1	CP50351	SW DISCHARGE
CB-2	CP50352	SW DISCHARGE
POND-2	CP50353	SW DISCHARGE
TRIP BLANK	CP50354	SW DISCHARGE



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn: Scottie McGowan
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Sample Information

Matrix: SW DISCHARGE
Location Code: AECOM-CHELSEA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: B
Analyzed by: see "By" below

Date

11/16/23
11/17/23

Time

13:50
14:05

Laboratory Data

SDG ID: GCP50351
Phoenix ID: CP50351

Project ID: GULF CHELSEA TERMINAL
Client ID: CB-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	1.7	1.0	ug/L	1	11/18/23	HM	E624.1

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

November 20, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn: Scottie McGowan
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Sample Information

Matrix: SW DISCHARGE
Location Code: AECOM-CHELSEA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: B
Analyzed by: see "By" below

Date

11/16/23
11/17/23

Time

14:10
14:05

Laboratory Data

SDG ID: GCP50351
Phoenix ID: CP50352

Project ID: GULF CHELSEA TERMINAL
Client ID: CB-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/18/23	HM	E624.1

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

November 20, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn: Scottie McGowan
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Sample Information

Matrix: SW DISCHARGE
Location Code: AECOM-CHELSEA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: B
Analyzed by: see "By" below

Date

11/16/23
11/17/23

Time

14:30
14:05

Laboratory Data

SDG ID: GCP50351
Phoenix ID: CP50353

Project ID: GULF CHELSEA TERMINAL
Client ID: POND-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/18/23	HM	E624.1

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director

November 20, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn: Scottie McGowan
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Sample Information

Matrix: SW DISCHARGE
Location Code: AECOM-CHELSEA
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: B
Analyzed by: see "By" below

Date

11/16/23
11/17/23

Time

8:00
14:05

Laboratory Data

SDG ID: GCP50351
Phoenix ID: CP50354

Project ID: GULF CHELSEA TERMINAL
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/18/23	HM	E624.1

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

TRIP BLANK INCLUDED.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

November 20, 2023

Reviewed and Released by: Rashmi Makol, Project Manager



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QA/QC Report

November 20, 2023

QA/QC Data

SDG I.D.: GCP50351

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 706992 (ug/L), QC Sample No: CP50493 (CP50351, CP50352, CP50353, CP50354)										
<u>Volatiles</u>										
Methyl t-butyl ether (MTBE)	ND	1.0	105	99	5.9	98	103	5.0	70 - 130	30

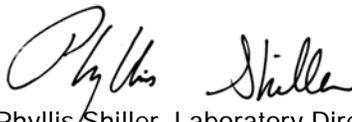
Comment:

A blank MS/MSD was analyzed with this batch.

Additional VOA Criteria: The 624 recovery criteria for the MS is different than the LCS, which is reported above.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference


 Phyllis Shiller, Laboratory Director
 November 20, 2023

Monday, November 20, 2023

Criteria: None

State: MA

Sample Criteria Exceedances Report

GCP50351 - AECOM-CHELSEA

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



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Analysis Comments

November 20, 2023

SDG I.D.: GCP50351

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

Appendix F

Stormwater Industrial Routine Facility Inspection Report and MSGP Quarterly Visual Assessment Form

MSGP Quarterly Visual Assessment Form

(Complete a separate form for each outfall you assess)

Name of Facility: _____

NPDES Tracking No. _____

Outfall Name: _____

"Substantially Identical Discharge Point"? Yes No

Person(s)/Title(s) collecting sample: _____

Person(s)/Title(s) examining sample: _____

Date & Time Discharge Began: _____

Date & Time Sample Collected: _____

Date & Time Sample Examined: _____

Substitute Sample? No Yes (identify quarter/year when sample was originally scheduled to be collected): _____

Nature of Discharge: Rainfall Snowmelt

If rainfall: Rainfall Amount: _____ inches Previous Storm Ended > 72 hours Yes No* (explain):
Before Start of This Storm?

Pollutants Observed

Color None Other (describe): _____

Odor None Musty Sewage Sulfur Sour Petroleum/Gas
 Solvents Other (describe): _____

Clarity Clear Slightly Cloudy Cloudy Opaque Other

Floating Solids No Yes (describe): _____

Settled Solids** No Yes (describe): _____

Suspended Solids No Yes (describe): _____

Foam (gently shake sample) No Yes (describe): _____

Oil Sheen None Flecks Globs Sheen Slick
 Other (describe): _____

Other Obvious Indicators No Yes (describe): _____
of Stormwater Pollution

* The 72-hour interval can be waived when the previous storm did not yield a measurable discharge or if you are able to document (attach applicable documentation) that less than a 72-hour interval is representative of local storm events during the sampling period.

** Observe for settled solids after allowing the sample to sit for approximately one-half hour.

Detail any concerns, additional comments, descriptions of pictures taken, and any corrective actions take below (attach additional sheets as necessary).

Certification Statement (Refer to MSGP Subpart 11 Appendix B for Signatory Requirements)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name: _____

B. Title: _____

C. Signature: _____

D. Date Signed: _____

				(identify needed maintenance and repairs, or any failed control measures that need replacement)
8		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
9		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
10		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
11		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
12		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
13		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
14		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
15		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
16		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
17		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
18		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
19		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
20		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

Below are some general areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	Material loading/unloading and storage areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Equipment operations and maintenance areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Fueling areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Outdoor vehicle and equipment washing areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Waste handling and disposal areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Erodible areas/construction	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	Non-stormwater/ illicit connections	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	Salt storage piles or pile containing salt	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	Dust generation and vehicle tracking	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
10	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Notes

Use this space for any additional notes or observations from the inspection:

CERTIFICATION STATEMENT

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Print name and title: _____

Signature: _____ **Date:** _____

Print name and title: _____

Signature: _____ **Date:** _____

Appendix G

Corrective Action Records

Chelsea Eastern Ave Corrective Action Log NPDES Permit MA0001091

Modifications and updates made to this SWPPP as a result of changes in facility layout, changes in facility usage, changes to the facility's stormwater system, or corrective actions taken to meet the effluent limitations set forth in this plan should be tracked in the following table. In the event an effluent limitation is exceeded, an entry must be made even if no modification to the SWPPP is necessary.

No.	Date	Description of Facility Change or Permit Effluent Limitations Exceedance	Modification to SWPPP (Yes/No)	Description of Corrective Action	Signature of Qualified Personnel
1	July 2024	(003) pH reading of 8.65, rose above permitted range of 6.5 to 8.5 on sample collected on July 12, 2024, at Outfall 003	NO	A second sample was collected at Outfall 003 on July 24, 2024, and the result was 8.24 s.u., within the permitted range.	
2	August 2024	(RTN 3-50628) On August 11, 2024, est. 15 gallons diesel fuel leak from 5,000 AST at Tank 123.	Yes	A 8,000 gallon double-walled AST with interstitial space monitoring was installed to replace the 5,000 gallon AST.	
3					
4					
5					
		Left Blank			
		Left Blank			

Note: This log starts in April 2024 when Global Companies LLC bought the Terminal on Eastern Avenue.

RTN = Release Tracking Number

AST = Above Ground Storage Tank

