

Chelsea Creek Fuel Terminals Draft NPDES Permits

Information Meeting



April 2005



This presentation focuses on the Draft NPDES permits for the Chelsea Creek Fuel Terminals



Regulated Facilities



Permit Conditions



Opportunities for Public Participation

Regulatory Background

- Federal Water Pollution Control Act (FWPCA) Amendments of 1972
 - Long term goal of eliminating all discharge of pollutants into navigable waters
 - Interim goal of attaining water quality which provides for the protection of fish, shellfish, and wildlife and provides for recreation in and on the water
 - Established a system (NPDES) for permitting wastewater discharges from point sources
- Clean Water Act (CWA) of 1977
 - Shifted emphasis to controlling toxic pollutants

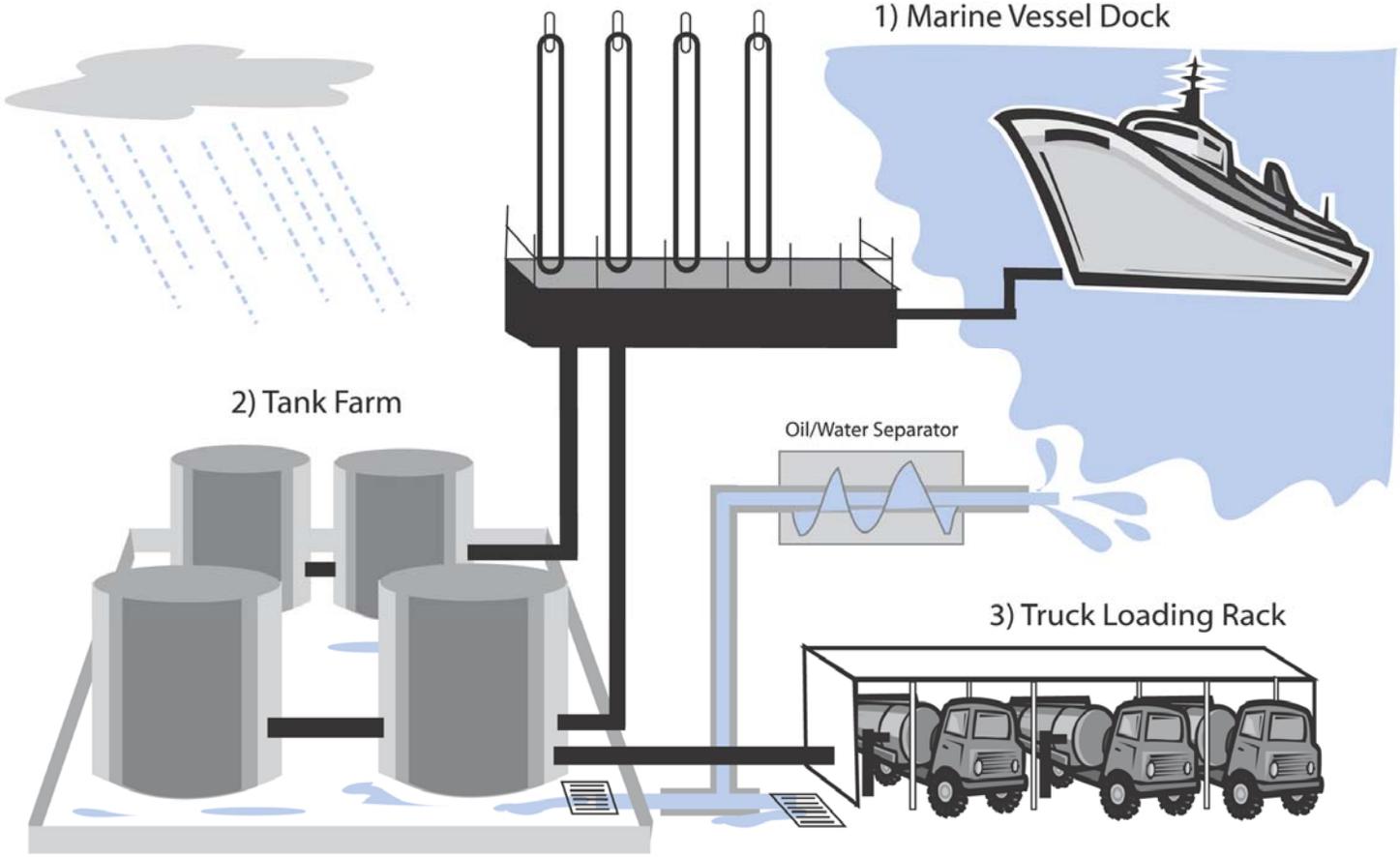
Chelsea Creek

- Classified by the State of Massachusetts as a Class SB water body:
 - The water quality of the creek should be able to support wading, swimming, fishing, boating and a healthy fish and aquatic life community.
- Officially classified as a Designated Port Area and is set aside primarily for industrial and commercial use which require access to the water.

Chelsea Creek



Fuel Terminal Flow Diagram



Marine Vessel Dock



Tank Farm



Truck Loading Rack



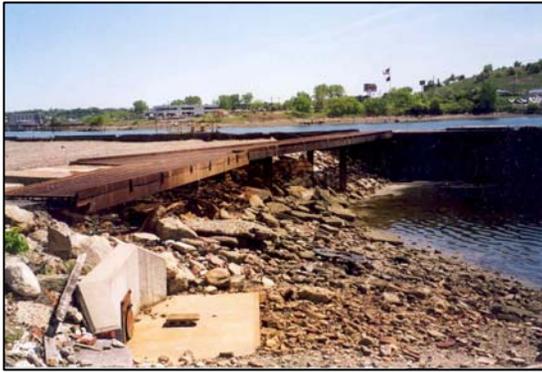
Oil/Water Separator



Outfall Pipe to Chelsea Creek



Permit Conditions Focus on Three Main Areas:



- **Water quality criteria**



- **Best Management Practices (BMP)**



- **Technology-based criteria**

Water Quality Criteria Identified in the Draft NPDES Permits:

- **Conventional Pollutants**

- Total Suspended Solids (TSS)
- Oil & Grease (O&G)
- pH

- **Toxic Pollutants**

- Volatile Organic Compounds (VOCs)
 - Benzene
 - Toluene, Ethylbenzene, Total Xylenes
 - Methyl tertiary-butyl ether (MTBE)
- Polynuclear Aromatic Hydrocarbons (PAHs)
 - Benzo(a)pyrene, Chrysene, Naphthalene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene

Each facility as part of its BMPs must develop a Storm Water Pollution Prevention Plan (SWPPP)



The SWPPP prevents pollution by controlling activities and operations

Each facility must sign and certify annually that the SWPPP is current and being complied with

The Oil/Water Separator forms the basis for establishing technology criteria



Oil/Water Separators are designed to remove solids and floating oils

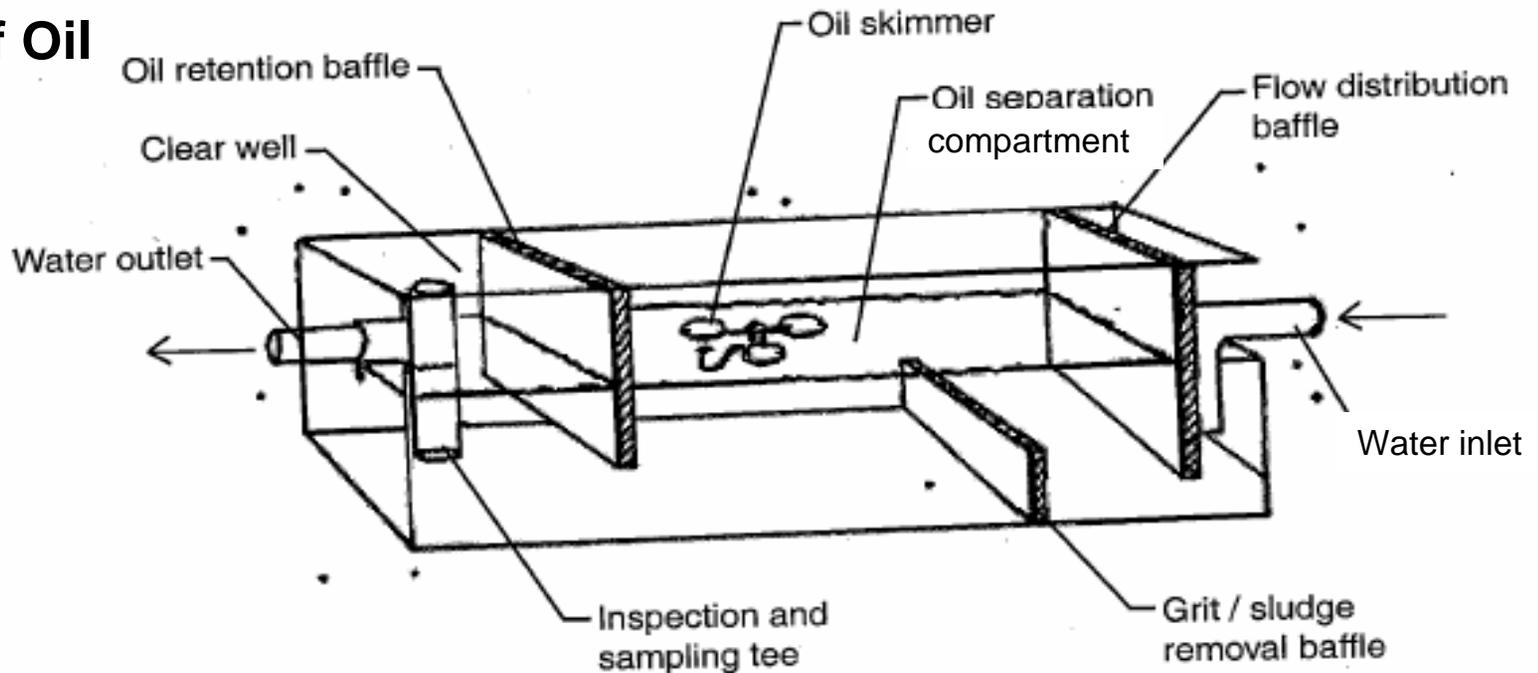
Design considerations include:

Water-Flow Rate

Operating Temperature

Desired Oil Removal Rate

Density of Oil



American Petroleum Institute (API) Type Separator
Perspective View

Criteria Comparison		Current Permits	Draft Permits
Water Quality Based Criteria	pH (SU)	Report	6.5 to 8.5
	Benzene (ppb)	500	51
	TSS (ppm)	30/100	30/100
	O&G (ppm)	15	15
	PAHs (ppb)	Report	Report
Technology Based Criteria	Flow Rate	Report	Maximum Daily Flow Limit
Best Management Practices	Storm Water Pollution Prevention Plan	Complete	Review & Certify Annually

1978 Permit Limits and Conditions Page

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date and lasting through expiration
 the permittee is authorized to discharge from outfall(s) serial number(s) 001

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day (lbs/day)		Other Units (Specify)		Measurement Frequency	Sample Type
	Daily Avg	Daily Max	Daily Avg	Daily Max		
Flow—m ³ /Day (MGD)	-	-	-	-		
Oil & Grease	-	-	-	15 mg/l	4/month*	Grab (See Part I:1 Other Requirements)
pH	-	-	**	-	1/month**	Grab

* At least four oil and grease samples of the treatment facility discharge shall be taken each month during two or more storm events. The first of each pair of samples shall be taken within the first hour of rainfall, the second after peak rainfall or after three hours of rain during the same storm in order to sample initial operation and operation when full.

An additional oil and grease sample shall be taken during any dry weather discharge not related to a storm event.

** The pH shall not be less than 6.5 standard units nor greater than 8.5 standard units unless these values are exceeded due to natural causes. The pH shall be monitored one time per month by a separate grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
 Discharge 001

PART I
 Page 2 of 3
 Issue No. MA0000025

2005 Draft Permit Limits and Conditions Page

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge treated storm water runoff from the Global South Terminal, LLC through Outfall Serial Number 001 to the Chelsea River. Such discharge shall: 1) be limited and monitored by the permittee as specified below; and 2) not cause a violation of the State Water Quality Standards of the receiving water.

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements ⁽¹⁾	
		Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate ⁽³⁾	gpm	----	700	When Discharging	Estimate
Total Flow ⁽⁴⁾	Mgal/ Month	Report Monthly Total	----	When Discharging	Estimate
Total Suspended Solids (TSS)	mg/L	30	100	1/Month ⁽²⁾	Grab
Oil and Grease (O&G) ⁽⁵⁾	mg/L	----	15	1/Month ⁽²⁾	Grab
pH	S.U.	----	6.5 to 8.5 ⁽⁶⁾	1/Month ⁽²⁾	Grab

2005 Draft Permit Limits and Conditions Page

Part I.A.1, Continued

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements ⁽¹⁾	
		Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Polynuclear Aromatic Hydrocarbons (PAHs) ⁽⁷⁾	µg/L		Report	Quarterly ⁽²⁾	Grab
Benzo(a)anthracene	µg/L	----	Report	Quarterly ⁽²⁾	Grab
Benzo(a)pyrene	µg/L	----	Report	Quarterly ⁽²⁾	Grab
Benzo(b)fluoranthene	µg/L	----	Report	Quarterly ⁽²⁾	Grab
Benzo(k)fluoranthene	µg/L	----	Report	Quarterly ⁽²⁾	Grab
Chrysene	µg/L	----	Report	Quarterly ⁽²⁾	Grab
Dibenzo(a,h)anthracene	µg/L	----	Report	Quarterly ⁽²⁾	Grab
Indeno(1,2,3-cd)pyrene		----			
Naphthalene					
Volatile Organic Compounds (VOCs)	µg/L		51	Quarterly ⁽²⁾	Grab
Benzene	µg/L	----	Report	Quarterly ⁽²⁾	Grab
Toluene	µg/L	----	Report	Quarterly ⁽²⁾	Grab
Ethylbenzene	µg/L	----	Report	Quarterly ⁽²⁾	Grab
Total Xylenes		----			
Methyl Tertiary-Butyl Ether (MTBE)					

See page 4 for explanation of footnotes

Opportunities for Public Participation: Public Information Meeting & Public Hearing

Wednesday, April 27, 2005

- **Public Information Meeting**
6:30 – 7:30 pm
- **Public Hearing**
7:30 – 8:30 pm



Music Room at the Williams Middle Schools
180 Walnut Street, Chelsea

Draft Permits are Available for Review

**Chelsea Public Library
569 Broadway
Chelsea
(617) 889-8397**

**Boston Public Library
276 Meridian Street
East Boston
(617) 569-0271**

**Revere Public Library
179 Beach Street
Revere
(781) 286-8380**

**US EPA Records Center
1 Congress Street
Boston
(617) 918-1440
(Please call to schedule an appointment)**

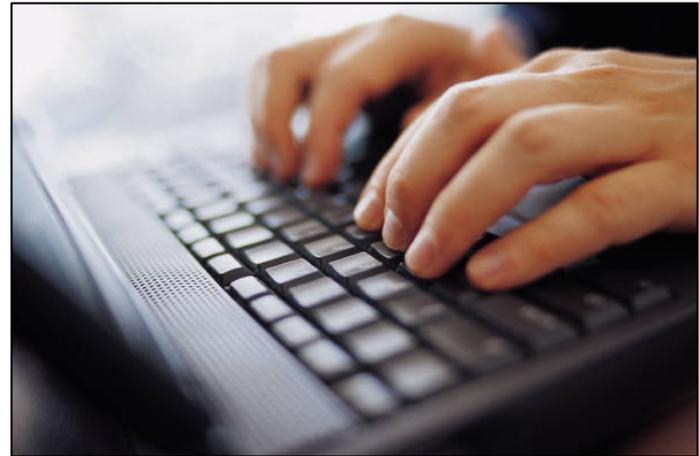
www.epa.gov/ne/npdes/chelseacreekfuelterminals

**All documents may be downloaded and printed
(Adobe Acrobat Reader is required)**

Written comments can be sent to EPA at the following address:

**EPA New England
1 Congress Street
Suite 1100 (CIP)
Boston, MA 02114
Attn: Neil Handler**

**Fax: (617) 918-0334
handler.neil@epa.gov**



Please specify the name of the facility and the permit number for which the comments are being provided

Facilities and Permit Numbers

- Chelsea Sandwich, LLC
(MA 0003280)
- Coastal Oil of New England, Chelsea Terminal
(MA 0004375)
- Gulf Oil Limited Partnership
(MA 0001091)
- Global REVCO Terminal
(MA 0003298)
- Global Petroleum Corp., Inc.
(MA 0003425)
- Global South Terminal, LLC
(MA 0000825)
- Irving Oil, Terminal, Inc.
(MA 0001929)



For More Information:

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Next Steps

- 60 day public comment period:
 - ends May 12, 2005
- After the public comment period ends, EPA formally responds to public comments and finalizes the draft permits, making any appropriate changes.
- EPA requests State Certification of finalized permits and Coastal Zone Management Consistency Review.
- Permits are signed by EPA and MADEP and become effective 60 days after finalization.
- The permits expire 5 years from the effective date.

In Conclusion the Draft NPDES Permits continue to be protective of human health and the environment

- Draft permits are in many ways more stringent than current permits.

- EPA will continue to monitor data and reports submitted by facilities to ensure compliance with permits.

