

NPDES PART II STANDARD CONDITIONS
(January, 2007)

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PART II. A. GENERAL REQUIREMENTS

1. Duty to Comply

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

- a. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.
- b. The CWA provides that any person who violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any of such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Section 402 (a)(3) or 402 (b)(8) of the CWA is subject to a civil penalty not to exceed \$25,000 per day for each violation. Any person who negligently violates such requirements is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. Any person who knowingly violates such requirements is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both.
- c. Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

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

2. Permit Actions

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

3. Duty to Provide Information

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

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4. Reopener Clause

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

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

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

5. Oil and Hazardous Substance Liability

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

6. Property Rights

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

7. Confidentiality of Information

- a. In accordance with 40 CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words “confidential business information” on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).
- b. Claims of confidentiality for the following information will be denied:
 - (1) The name and address of any permit applicant or permittee;
 - (2) Permit applications, permits, and effluent data as defined in 40 CFR §2.302(a)(2).
- c. Information required by NPDES application forms provided by the Regional Administrator under 40 CFR §122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

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8. Duty to Reapply

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

9. State Authorities

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

10. Other Laws

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

PART II. B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

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

2. Need to Halt or Reduce Not a Defense

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

3. Duty to Mitigate

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

4. Bypass

a. Definitions

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

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

b. Bypass not exceeding limitations

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

c. Notice

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

d. Prohibition of bypass

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

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

5. Upset

- a. Definition. *Upset* means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph B.5.c. of this section are met. No determination made during

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

- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in paragraphs D.1.a. and 1.e. (Twenty-four hour notice); and
 - (4) The permittee complied with any remedial measures required under B.3. above.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

PART II. C. MONITORING REQUIREMENTS

1. Monitoring and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. Except for records for monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application except for the information concerning storm water discharges which must be retained for a total of 6 years. This retention period may be extended by request of the Regional Administrator at any time.
- c. Records of monitoring information shall include:
 - (1) The date, exact place, and time of sampling or measurements;
 - (2) The individual(s) who performed the sampling or measurements;
 - (3) The date(s) analyses were performed;
 - (4) The individual(s) who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.
- d. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in the permit.
- e. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by

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

2. Inspection and Entry

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

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.

PART II. D. REPORTING REQUIREMENTS

1. Reporting Requirements

- a. **Planned Changes.** The permittee shall give notice to the Regional Administrator as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is only required when:
 - (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR§122.29(b); or
 - (2) The alteration or addition could significantly change the nature or increase the quantities of the pollutants discharged. This notification applies to pollutants which are subject neither to the effluent limitations in the permit, nor to the notification requirements at 40 CFR§122.42(a)(1).
 - (3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition or change may justify the application of permit conditions different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. **Anticipated noncompliance.** The permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- c. **Transfers.** This permit is not transferable to any person except after notice to the Regional Administrator. The Regional Administrator may require modification or revocation and reissuance of the permit to change the name of the permittee and

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

- d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- (1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
 - (2) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of the monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.
 - (3) Calculations for all limitations which require averaging or measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
- e. Twenty-four hour reporting.
- (1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances.

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - (2) The following shall be included as information which must be reported within 24 hours under this paragraph.
 - (a) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR §122.41(g).)
 - (b) Any upset which exceeds any effluent limitation in the permit.
 - (c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Administrator in the permit to be reported within 24 hours. (See 40 CFR §122.44(g).)
 - (3) The Regional Administrator may waive the written report on a case-by-case basis for reports under Paragraph D.1.e. if the oral report has been received within 24 hours.

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- f. Compliance Schedules. Reports of compliance or noncompliance with, any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
 - g. Other noncompliance. The permittee shall report all instances of noncompliance not reported under Paragraphs D.1.d., D.1.e., and D.1.f. of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D.1.e. of this section.
 - h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Administrator, it shall promptly submit such facts or information.
2. Signatory Requirement
- a. All applications, reports, or information submitted to the Regional Administrator shall be signed and certified. (See 40 CFR §122.22)
 - b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.
3. Availability of Reports.

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

PART II. E. DEFINITIONS AND ABBREVIATIONS

1. Definitions for Individual NPDES Permits including Storm Water Requirements

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

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

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

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

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

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

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

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

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

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

Construction Activities - The following definitions apply to construction activities:

- (a) Commencement of Construction is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.
- (b) Dedicated portable asphalt plant is a portable asphalt plant located on or contiguous to a construction site and that provides asphalt only to the construction site that the plant is located on or adjacent to. The term dedicated portable asphalt plant does not include facilities that are subject to the asphalt emulsion effluent limitation guideline at 40 CFR Part 443.
- (c) Dedicated portable concrete plant is a portable concrete plant located on or contiguous to a construction site and that provides concrete only to the construction site that the plant is located on or adjacent to.

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

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

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

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

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

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

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

Discharge of a pollutant means:

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

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

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

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

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

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

EPA means the United States “Environmental Protection Agency”.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (a) From which there is or may be a “discharge of pollutants”;
- (b) That did not commence the “discharge of pollutants” at a particular “site” prior to August 13, 1979;
- (c) Which is not a “new source”; and
- (d) Which has never received a finally effective NPDES permit for discharges at that “site”.

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

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

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

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

NPDES means “National Pollutant Discharge Elimination System”.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (1) is listed at 40 CFR §372.65 pursuant to Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986);
- (2) is present at or above threshold levels at a facility subject to EPCRA Section 313 reporting requirements; and
- (3) satisfies at least one of the following criteria:
 - (i) are listed in Appendix D of 40 CFR Part 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols), or Table V (certain toxic pollutants and hazardous substances);
 - (ii) are listed as a hazardous substance pursuant to Section 311(b)(2)(A) of the CWA at 40 CFR §116.4; or
 - (iii) are pollutants for which EPA has published acute or chronic water quality criteria.

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

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

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

Significant materials includes, but is not limited to: raw materials, fuels, materials such as solvents, detergents, and plastic pellets, raw materials used in food processing or production, hazardous substance designated under section 101(14) of CERCLA, any chemical the facility is required to report pursuant to EPCRA Section 313, fertilizers, pesticides, and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

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

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

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

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

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

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

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

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

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

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

Waters of the United States means:

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of tide;
- (b) All interstate waters, including interstate “wetlands”;
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands”, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) Which are or could be used by interstate or foreign travelers for recreational or other purpose;
 - (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in Paragraphs (a) through (d) of this definition;
- (f) The territorial sea; and
- (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in Paragraphs (a) through (f) of this definition.

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

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

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

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

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

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

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

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

- (1) To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; and
- (2) To minimize the amount of nitrogen in the sewage sludge that passes below the root zone of the crop or vegetation grown on the land to the ground water.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Feed crops are crops produced primarily for consumption by animals.

Fiber crops are crops such as flax and cotton.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Range land is open land with indigenous vegetation.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3. Commonly Used Abbreviations

BOD	Five-day biochemical oxygen demand unless otherwise specified
CBOD	Carbonaceous BOD
CFS	Cubic feet per second
COD	Chemical oxygen demand
Chlorine	
Cl ₂	Total residual chlorine
TRC	Total residual chlorine which is a combination of free available chlorine (FAC, see below) and combined chlorine (chloramines, etc.)

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(January, 2007)

TRO	Total residual chlorine in marine waters where halogen compounds are present
FAC	Free available chlorine (aqueous molecular chlorine, hypochlorous acid, and hypochlorite ion)
Coliform	
Coliform, Fecal	Total fecal coliform bacteria
Coliform, Total	Total coliform bacteria
Cont. (Continuous)	Continuous recording of the parameter being monitored, i.e. flow, temperature, pH, etc.
Cu. M/day or M ³ /day	Cubic meters per day
DO	Dissolved oxygen
kg/day	Kilograms per day
lbs/day	Pounds per day
mg/l	Milligram(s) per liter
ml/l	Milliliters per liter
MGD	Million gallons per day
Nitrogen	
Total N	Total nitrogen
NH ₃ -N	Ammonia nitrogen as nitrogen
NO ₃ -N	Nitrate as nitrogen
NO ₂ -N	Nitrite as nitrogen
NO ₃ -NO ₂	Combined nitrate and nitrite nitrogen as nitrogen
TKN	Total Kjeldahl nitrogen as nitrogen
Oil & Grease	Freon extractable material
PCB	Polychlorinated biphenyl
pH	A measure of the hydrogen ion concentration. A measure of the acidity or alkalinity of a liquid or material
Surfactant	Surface-active agent

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

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

FACT SHEET

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

NPDES PERMIT NO: **MA0003298**

PUBLIC NOTICE DATE:

NAME AND ADDRESS OF APPLICANT:

**Global REVCO Terminal, LLC
140 Lee Burbank Highway
Revere, MA 02151**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Global REVCO Terminal, LLC
101 and 186 Lee Burbank Highway
Revere, MA 02151**

RECEIVING WATER: **Outfall 001 - Chelsea River/Mystic River Watershed (MA71-06)
Outfall 005 - Sales Creek/Winthrop Bay (MA70-10)**

CLASSIFICATION: **SB**

I. PROPOSED ACTION

The above named applicant has applied to the U.S. Environmental Protection Agency (EPA) for the re-issuance of a National Pollutant Discharge Elimination System (NPDES) permit to discharge treated storm water into the designated receiving waters. The permit, which was issued to the Global REVCO Terminal, LLC facility in Revere, Massachusetts (Global REVCO) on March 6, 1998 (the Current Permit), became effective on April 5, 1998, and expired on April 5, 2003. EPA received a permit renewal application dated January 31, 2003, from Global REVCO.

Since the permit renewal application was deemed both timely and complete by EPA, the permit has been administratively continued.

II. TYPE OF FACILITY

The Global REVCO facility is engaged in the receipt, storage, and distribution of petroleum products. The spectrum of fuels handled by this facility consists of gasoline, distillate products (e.g., kerosene, diesel fuel, and No.2 Fuel Oil), and various product additives. Petroleum products are received in bulk quantities at the marine vessel dock or transferred to Global REVCO through an inter-terminal supply network from neighboring facilities. Once the product is received, it is transferred underneath Lee Burbank Highway (Route 1A) to the facility's tank farm located on the east side of the highway. Final distribution of product was originally conducted at the facility's terminal yard located on the west side of the highway. However, in 1999 the truck loading racks were closed, dismantled, and portions of the terminal yard were redeveloped. Truck loading operations currently take place at the Global Petroleum Corporation Terminal located next door at 140 Lee Burbank Highway. The NPDES discharge consists of treated storm water runoff from pervious and impervious areas at the facility. Occasionally, the NPDES discharge also includes treated water from the hydrostatic testing of repaired tanks. The storm water and hydrostatic test water discharges are to either the Chelsea River through Outfall 001 or Sales Creek through Outfall 005 (See Figure 1).

III. SUMMARY OF MONITORING DATA

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

IV. PERMIT LIMITATIONS AND CONDITIONS

The effluent limitations, monitoring requirements, and any implementation schedule, if required, may be found in Part I (Effluent Limitations and Monitoring Requirements) of the draft NPDES permit (Draft Permit). The permit application is part of the administrative file (Permit No. MA0003298).

V. PERMIT BASIS AND EXPLANATION OF EFFLUENT LIMITATION DERIVATION

A. General Requirements

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

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

1. Technology-Based Requirements

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

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

EPA has not promulgated technology-based National Effluent Guidelines for storm water discharges from petroleum bulk stations and terminals (Standard Industrial Code 5171). In the absence of technology-based effluent guidelines, the permit writer is authorized under Section 402(a)(1)(B) of the CWA to establish effluent limitations on a case-by-case basis using Best Professional Judgement (BPJ).

2. Water Quality-Based Requirements

Water quality-based criteria are required in NPDES permits when EPA and the State determine that effluent limits more stringent than technology-based limits are necessary to maintain or achieve state or federal water-quality standards (See Section 301(b) (1)(C) of the CWA). Water quality-based criteria consist of three (3) parts: 1) beneficial designated uses for a water body or a segment of a water body; 2) numeric and/or narrative water quality criteria sufficient to protect the assigned designated use(s) of the water body; and 3) anti-degradation requirements to ensure that once a use is attained it will not be degraded. The Massachusetts State Water Quality

Standards, found at 314 CMR 4.00, include these elements. The State Water Quality Regulations limit or prohibit discharges of pollutants to surface waters and thereby assure that the surface water quality standards of the receiving water are protected, maintained, and/or attained. These standards also include requirements for the regulation and control of toxic constituents and require that EPA criteria, established pursuant to Section 304(a) of the CWA, be used unless a site-specific criteria is established. EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 CFR §122.44(d).

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

3. Anti-Backsliding

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

4. Anti-Degradation

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

B. Description of Facility

Global REVCO is a bulk petroleum facility with operations consisting of the receipt, storage, and distribution of petroleum products. The terminal is located along the eastern shore of the Chelsea

River, approximately two and one-half (2.5) miles northeast of the confluence of the Mystic and Chelsea Rivers (See Figure 1). The facility, which comprises approximately twenty-one (21) acres, consists of a tank farm and a portion of the original terminal yard (See Figure 2).

The facility has the ability to receive bulk product from two nearby marine vessel docks which are located along the Chelsea River. One marine vessel dock (See South Dock on Figure 3) is located behind the Irving Oil Revere Terminal (MA0001929) and the other vessel dock (See North Dock on Figure 3) which belongs to Global REVCO, is located behind the Global Petroleum Corporation Terminal (MA0003425). Bulk product is transferred from either marine vessel dock through a piping supply network to the Global REVCO tank farm. The Global REVCO facility is also capable of shipping product to and receiving product from neighboring terminals via an inter-terminal supply network. The product spectrum stored at the facility consists of gasoline (high and low octane grades), diesel fuel, kerosene, and No.2 Fuel Oil. There are no other chemical processes/reactions which occur at the facility.

The terminal yard is located on the west side of the highway and originally consisted of an office building, an operations building, a garage, a boiler house, a foam house, two (2) truck loading racks, a rail cargo loading rack, and two oil/water (O/W) Separators (O/W Separators Nos. 1 and 3). There have been a number of physical changes within the terminal yard since the issuance of the Current Permit which impact the operations occurring on this portion of the facility. The truck loading racks and several buildings have been dismantled and product distribution now takes place at the adjacent Global Petroleum Corporation's truck loading rack.

The northern most portion of the terminal yard (230 Lee Burbank Highway) has been redeveloped and is now the location of Hampton Inn, a hotel chain. The southern most portion of the former terminal yard (186A Lee Burbank Highway) is now used as a warehouse for Oceanair, an air freight transportation company. Although much of the former terminal yard is no longer being used for petroleum-related activities, there is still one small parcel of land on the west side of the highway which continues to be used by Global REVCO. The narrow parcel (identified as 186 Lee Burbank Highway) is located between the Oceanair and the Hampton Inn properties. This property is primarily used for the piping supply network and associated controls to allow petroleum products to be transferred to and from the facility.

The tank farm, which is located on the east side of the highway (101 Lee Burbank Highway) generally consists of aboveground steel storage tanks and product piping. When the Current Permit was issued in 1998 there were approximately twenty-five (25) aboveground storage tanks with a gross capacity of slightly over 1.4 million barrels (approximately 58 million gallons) at the facility. Since that time, Global REVCO has sold off the northern most portion of the tank farm (201 Lee Burbank Highway) thereby eliminating Tank Nos. 1 - 9 from service. The total gross storage capacity of the tank farm has been reduced by approximately 134,000 barrels (approximately 5 million gallons) with the removal of these tanks from service. The tanks and piping on the redeveloped portion of the tank farm have been emptied, cleaned, and dismantled with the exception of one tank. The one remaining tank (former Tank No. 9 with a capacity of

approximately 1 million gallons) is being used during redevelopment of the site for the storage of storm water.

There are sixteen (16) aboveground bulk product storage tanks remaining within the tank farm at the time of the drafting of this Fact Sheet. The sixteen (16) tanks have a total gross storage capacity of almost 1.3 million barrels (or approximately 54 million gallons). The tank farm also contains several smaller aboveground tanks used to store fuel additives. These fuel additive tanks have a total storage capacity of approximately 13,000 gallons.

Secondary containment for the tank farm is provided through a mixture of earthen berms and steel dikes surrounding the bulk storage tanks. Six (6) tanks (Tank Nos. 21 - 26) have steel dikes surrounding the tanks. Two (2) of the steel dikes have steel floors and four (4) have earthen floors. The remaining ten (10) tanks in the tank farm are surrounded by earthen berms. All of the individual steel containment dikes are designed to contain the contents of the enclosed tank plus an added volume to hold any fire-extinguishment chemicals, water and/or precipitation (approximately 110 to 130 percent of the circumscribed tank's storage capacity). Similarly, the earthen berms surrounding the remaining tanks are designed to contain the contents of the largest tank plus an additional volume for the storage of fire protection water and precipitation. The dikes and berms prevent any potentially spilled petroleum products from migrating from one tank area to another or into any surrounding waterways.

Operations at the Global REVCO Terminal also depend on the use of a number of smaller aboveground tanks which are located throughout the facility. These tanks range in size from several hundred gallons to several thousand gallons and are used for: the facility fire protection system, product recovery, and storing of heating oil and diesel fuel for the facilities "own use."

C. Description of Discharge

Storm water is primarily collected at the facility from within the secondary containment area of the tank farm and a small portion of the former terminal yard. The tank farm and terminal yard are located on opposite sides of Lee Burbank Highway and as such have their own separate storm water collection and treatment systems. A more detailed description of the discharge is provided below.

1. Terminal Yard

As discussed in the previous section of this Fact Sheet, there have been several changes made to the terminal yard which impact the collection, treatment, and discharge of storm water from this portion of the facility. A significant portion of the former terminal yard has been redeveloped and this has impacted what is being discharged through Outfalls 001 and 003. The northern most portion of the former terminal yard (230 Lee Burbank Highway) is now the location of a Hampton Inn hotel. During construction of the inn, O/W Separator 3 was removed and the

underground drainage line leading to Outfall 003 was disconnected. As a result, the discharge from Outfall 003 into the Chelsea River ceased around January of 1999.

The southern most portion of the former terminal yard (186A Lee Burbank Highway) is now used as a warehouse for Oceanair. Storm water runoff from this portion of the facility is directed to O/W Separator 1 and from there to Outfall 001 which discharges into the Chelsea River. In September of 1999 Global REVCO installed a carbon system to treat the storm water flowing through Outfall 001. The carbon system was put in place as a result of the discovery of a petroleum sheen in the Chelsea River adjacent to this outfall. The source of the petroleum sheen was believed to be contaminated groundwater which was infiltrating into the storm water drainage system at the Global REVCO facility.

The use of the carbon system to treat the discharge from Outfall 001 was regulated under the Massachusetts Contingency Plan and a NPDES Permit Exclusion Letter (No. 99-235) issued to the facility by EPA. The use of the carbon system continued until Global REVCO completed the following actions during the summer/fall of 2001: 1) existing catch basins leading to Outfall 001 were pumped dry and filled with concrete; 2) a water tight catch basin with a lift pump was installed to collect runoff from the Oceanair parking lot; 3) an aboveground piping system was installed to convey runoff draining into the water tight catch basin to O/W Separator 1; and 4) a new larger aboveground O/W Separator 1 was installed to treat storm water runoff to be discharged through Outfall 001. These changes eliminated the pathway for contaminated ground water to enter into the storm water drainage system. As a result the facility was allowed by the MADEP to discontinue using the carbon system to treat the water to be discharged through Outfall 001.

There is still one small parcel of the former terminal yard which continues to be used by Global REVCO. The parcel which is located at 186 Lee Burbank Highway, between the Oceanair and Hampton Inn properties, is primarily used for the piping supply network and associated controls. O/W Separator 1 as well as several smaller aboveground fuel additive tanks are also located on this property. A small berm has been constructed around the parcel to keep storm water runoff from entering either the adjacent Oceanair and/or Hampton Inn properties. Storm water runoff on the Global REVCO parcel flows overland in a westerly direction to a sump located nearby O/W Separator 1. Occasionally rainfall which has accumulated in the piping tunnel is also pumped to this sump. A submersible pump is located within the sump which is manually activated to transfer accumulated storm water runoff to O/W Separator 1 for treatment.

O/W Separator 1 is an aboveground 900 gallon coalescing plate separator with a maximum design flow rate of 75 gallons per minute (gpm). A flow restriction device (i.e., an orifice plate) was installed in O/W Separator 1 in July of 2004 to reduce the flow through the separator to approximately 75 gpm. The discharge from O/W Separator 1 flows by gravity through Outfall 001 into Chelsea River.

Global REVCO submitted a letter to EPA dated July 21, 2004, requesting to amend the January 2003 NPDES permit renewal application submitted for the facility. In their letter, Global REVCO requested permission to eliminate the storm water discharge from the Oceanair property from Global REVCO's storm water treatment system (i.e., O/W Separator 1). The basis for the request was: 1) there are no longer any fuel terminal-related activities occurring on the Oceanair property, and 2) the physical changes made to the storm water conveyance system on the Oceanair property (i.e., segregation of storm water from potentially contaminated groundwater and/or storm water) have eliminated other potential sources of contamination to the storm water.

EPA agrees that the current conditions and actions taken at the Oceanair facility have eliminated the need for treatment of the storm water runoff from this facility. As such, Global REVCO has been given permission to disconnect Oceanair's storm water discharge from Global REVCO's O/W Separator 1. EPA has requested that Global REVCO provide EPA with written notification of completion of the change. The notification will serve to augment the facility's permit application.

2. Marine Vessel Dock

The marine vessel dock has a steel drip pan located beneath the manifold area to recover any potentially spilled product. Storm water as well as any residual product accumulating in the drip pan is pumped through existing product pipelines under the highway to one of the terminal's above ground storage tanks for off-site disposal. The direct discharge of any storm water accumulating in the drip pan to Chelsea Creek would be a violation of the CWA.

3. Tank Farm

The bulk storage tanks located within the tank farm at this facility are surrounded either by earthen berms or steel dikes to control the runoff of any storm water and/or potentially spilled product. Storm water accumulating within these areas either evaporates, infiltrates into the ground, or is drained to the terminal's storm water conveyance system. Accumulated water which is to be drained from within the earthen berms of the tank farm, is directed from south to north and west to east through a series of sumps and aboveground pipes. Water accumulating within the steel dikes is gravity drained and directed through a swale to a lift station located nearby Tank No. 23. There are three (3) locations within the tank farm from which accumulated storm water is pumped to O/W Separator 5 for treatment. At each of these locations within the bermed areas surrounding tank numbers 17, 20, and 23 there is a lift station containing one 3-horsepower pump which must be manually activated. The water is visually inspected by facility staff and as long as it is free of petroleum product (i.e., there is no visible sheen) the lift station pump(s) can be turned on. All three (3) lift stations can be operated at the same time depending on the quantity of storm water to be removed. From the lift station(s) the water flows through an aboveground pipe to O/W Separator 5.

The facility had four (4) outfalls (i.e., Outfalls 002, 004, 005, and 006) in the Current Permit to discharge storm water from the tank farm area. These outfalls all discharged into Sales Creek which in turn drains to Winthrop Bay/Boston Harbor. In April of 2000, the storm water collection systems for Outfalls 002, 004, 005, and 006 were upgraded. The discharge from all of the tank farm outfalls were consolidated and released through a single outfall, Outfall 006. To handle and treat this combined flow, Global REVCO used Tank No. 6 (an out of service, cleaned aboveground bulk storage tank) as the primary O/W Separator for the storm water runoff from the tank farm. The inside of the tank was physically modified so that it could serve as a holding tank and gravity O/W Separator.

In April of 2002, the facility notified EPA that it was entering in negotiations to convey a portion of the tank farm to a private party for redevelopment. The sale of the northern most portion of the tank farm parcel (201 Lee Burbank Highway) was completed in June of 2003. As a result of the sale, Tank Nos. 1 - 9 and Outfalls 004 and 006 were eliminated from service. After making several improvements to the storm water conveyance and treatment system for the tank farm, Global REVCO re-activated Outfall 005 in September of 2003. The improvements included the installation of a new aboveground 5000 gallon coalescing plate O/W Separator (O/W Separator 5) nearby Tank No. 23. In addition, the discharges from the lift stations located within the tank farm were re-directed through aboveground piping to O/W Separator 5. The new separator has a maximum design flow rate of 500 gpm. A flow restriction device (i.e., and orifice plate) was installed in O/W Separator 5 in July of 2004 to reduce the flow through the separator to approximately 350 gpm. The discharge from O/W Separator 5 flows by gravity through Outfall 005 into Sales Creek.

Flow rates through O/W Separators are not to exceed the design capacity of the separator (thereby minimizing the potential for carry-over). Global REVCO has indicated that the flow rate through the two O/W Separators in operation at the facility (O/W Separators 1 and 5) are controlled through the use of flow restriction devices (i.e., orifice plates). Orifice plates were installed in O/W Separators 1 and 5 to reduce the flow through each separator to approximately 75 gpm and 350 gpm, respectively.

Global REVCO has indicated that all tank bottom water is consolidated and hauled off-site by a licensed waste hauler(s) for treatment and disposal elsewhere. There have been several hydrostatic-test water discharges reported at the facility since the issuance of the Current Permit. The MWRA - City of Revere water supply was used as the source of water for these tests. Discharge monitoring and reporting were conducted for these testing events in accordance with the procedures described in Part I.A.16 of the Current Permit. Results from the testing of the hydrostatic test water shows conformance with the requirements and conditions identified in the Current Permit. There is no groundwater remediation system presently in operation at the facility. A permit modification or issuance of a separate NPDES permit would be needed should the facility initiate any discharge from a groundwater remediation system.

This Draft Permit authorizes the discharge of storm water from Outfall 001 and storm water and hydrostatic test water from Outfall 005 at the Global REVCO facility.

D. Discharge Location

The two outfalls identified in the Draft Permit discharge into different receiving waters. Outfall 001 discharges into Chelsea River (Mystic River Watershed/Segment MA71-06), an urban tidal river flowing from the mouth of Mill Creek, between Chelsea and Revere, to Boston's Inner Harbor, between East Boston and Chelsea. For centuries, Chelsea River has been flanked by working industries, many of which used the channel to transport raw materials and finished goods. The river is officially classified as a Designated Port Area: a stretch of waterfront set aside primarily for industrial and commercial use. Chelsea River, which is also locally known as Chelsea Creek, is designated as a Class SB water body by the State of Massachusetts (See Part V.A.4. of this Fact Sheet for additional information).

Outfall 005 discharges into Sales Creek, a small water body which flows into Belle Isle Marsh and from there into Winthrop Bay (Segment MA70-10). Winthrop Bay is one of the estuarine segments identified as part of Boston Harbor and is classified as a Class SB water for shellfish by the State of Massachusetts (See Part V.A.4. of this Fact Sheet for additional information).

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

The MADEP is required under the CWA to develop a Total Maximum Daily Load (TMDL) for a water body once it is identified as impaired. A TMDL is essentially a pollution budget designed to restore the health of a water body. A TMDL typically identifies the source(s) of the pollutant from direct and indirect discharges, determines the maximum amount of pollutant, including a margin of safety, that can be discharged to a specific water body while maintaining water quality standards for designated uses, and outlines a plan to meet the goal. A TMDL has not yet been developed for the Chelsea River and Sales Creek/Winthrop Bay. In the interim, EPA is

developing the conditions for this permit based on a combination of water quality standards and best professional judgement. Should a TMDL be developed in the future, and if that TMDL identifies that the discharge from the facility is causing or contributing to the non-attainment of surface water quality criteria, then the permit may be re-opened. Additional details are provided below (See Sections V.E.3 and V.E.5 of this Fact Sheet) regarding the basis for the effluent limits established in the Draft Permit and how such limits relate to any of the “pollutants” identified above as impacting the water quality of the Chelsea River and Sales Creek.

E. Proposed Permit Effluent Limitations and Conditions

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

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

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

Storm water discharges from activities associated with petroleum bulk stations and terminals must satisfy best conventional technology (BCT) and best available technology (BAT) requirements and must comply with more stringent water quality standards if BCT and BAT requirements are not adequate. On September 25, 1992, EPA promulgated through its General Permit for Storm Water Discharge Associated with Industrial Activity, that the minimum BAT/BCT requirement for storm water discharges associated with industrial activity is a Storm Water Pollution Prevention Plan (SWPPP) [57 FR, 44438]. EPA has included SWPPP requirements in the Draft Permit. In addition, EPA has decided to include numeric effluent limitations (e.g., technology-based and water quality-based limits) in the Draft Permit to ensure that petroleum constituents do not contribute to violations of the State's water quality standards.

Thus the Draft Permit for Global REVCO, authorizing the discharge of storm water and hydrostatic test water, includes numeric effluent limits and requires the development, implementation, and annual review of the SWPPP prepared for the facility. The effluent

parameters in the Draft Permit are discussed in more detail below according to the effluent characteristic(s) being regulated.

1. Flow

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

To ensure proper operation of installed O/W Separators such that the oil and/or particulate phases are not entrained to the waterway, it is important that the flow through the separator be maintained at or below the maximum design flow rate of the separator. In order to ensure that this criteria was being met, EPA and the MADEP required as part of the Current Permit, that the facility identify both the maximum design flow rate of the O/W Separators and the measures taken by the facility to ensure that the flow rate would not be exceeded (See Part I.A.6 of the Current Permit).

In response to this permit requirement, Global REVCO identified that O/W Separator 1 (Outfall 001) and O/W Separator 5 (Outfall 005) have a maximum design flow rate of 75 gpm and 500 gpm, respectively. Global REVCO also indicated that the flow rate is controlled in both of the O/W Separators through the use of a flow restriction device (e.g., orifice plate). The orifice plate installed in O/W Separator 1 reduces the flow through this separator to approximately 75 gpm while the orifice plate installed in O/W Separator 5 reduces the flow to approximately 350 gpm.

Since the flow through each of the facility's O/W Separators does not exceed its respective maximum design flow rating, Global REVCO has demonstrated their compliance with Part I.A.6 of the Current Permit. The Draft Permit requires that the facility provide written notification and receive approval by EPA and MADEP for any proposed changes which have the potential to cause the maximum design flow rate through the O/W Separator(s) to be exceeded.

EPA and MADEP are using the design flow information submitted by Global REVCO for each O/W Separator to identify the maximum daily effluent limit for Flow Rate from Outfall 001 and Outfall 005. An instantaneous flow rate of **75** gpm for O/W Separator 1 and **500** gpm for the O/W Separator 5, will respectively become the Flow Rate limits for Outfall 001 and 005 in the Draft Permit. The flow control device or system as described above and the identification of an instantaneous maximum flow rate should ensure compliance with "proper operation" as described at 40 CFR §122.41(e).

2. Total Suspended Solids (TSS)

The Draft Permit limit for TSS remains unchanged at 30 mg/l and 100 mg/l for the average monthly and maximum daily values, respectively. The monitoring frequency for this parameter will remain semi-monthly as identified in the Current Permit. EPA has chosen not to reduce the monitoring frequency for this parameter in the Draft Permit (to monthly as it has done for several other facilities along Chelsea River). This is primarily because of the limited amount of monitoring data available regarding the performance of the recently upgraded storm water treatment systems at the facility. For example, the main O/W Separator for the tank farm (O/W Separator 5) has only been in operation since September 2003 and as a result there is not sufficient information available at this time to evaluate the performance of this treatment unit.

The TSS limits in the Draft Permit are based upon the limits established in the Current Permit in accordance with the anti-backsliding requirements found in 40 CFR §122.44(l). Heavy metals and polynuclear aromatic hydrocarbons are readily adsorbed onto particulate matter and the release of these compounds can to an extent, be controlled by regulating the amount of suspended solids released into the environment.

The limits in the Current Permit were developed based upon a BPJ determination. In making this determination, EPA considered the technology guidelines promulgated at 40 CFR Part 423 for the Steam Electric Power Point Source Category for guidance. Steam electric generating facilities, similar to bulk petroleum storage facilities, frequently include the storage of fuel oil on their premises. In developing effluent limits for Steam Electric Source Category, EPA identified TSS as a potential pollutant due to the drainage associated with equipment containing fuel oil and/or the leakage associated with the storage of oil (USEPA, 1982). EPA then considered the level of treatment that could be technologically achieved for TSS using an O/W Separator and set corresponding limits in the guidelines (See 40 CFR Part 423 “low volume waste sources”). Given the similarities between the storage of petroleum products at bulk stations and terminals and the storage of fuel oil at steam electric facilities, EPA is using the same TSS limits established for steam electric facilities for bulk petroleum storage facilities.

There were a number of instances during the previous permit cycle when TSS limits were exceeded as shown in the summary of the discharge monitoring data submitted by the facility during the time period of 1998 to 2003 (See Attachment A to this Fact Sheet). A number of the outfalls monitored during the previous permit cycle are no longer in existence (i.e., Outfalls 002, 003, 004, and 006). In reviewing the data for Outfalls 001 and 005, the two outfalls which remain in service, there does not appear to be any observable trends associated with the sporadic occasions of elevated TSS levels, other than to note that most of the elevated levels were for the monthly average TSS limit. Overall, the facility has been able to meet its TSS limits over the last permit cycle through the proper operation of correctly-sized O/W Separators, appropriate source controls, routine inspections, preventative maintenance, and implementation of best management practices.

3. Oil and Grease (O&G)

The Draft Permit limit for Oil and Grease (O&G) remains unchanged at 15 mg/L for the maximum daily value. The monitoring frequency for this parameter will remain semi-monthly as identified in the Current Permit (See Section V.E.2 of this Fact Sheet for an additional explanation of why the monitoring frequency for this parameter was not modified). O&G shall be measured using EPA method 1664. Originally this effluent limit was established by EPA-Headquarters as guidance to, and as a means of establishing a categorization within, the petroleum marketing terminals and oil production-facilities - categories. However, performance data from terminals in Massachusetts and Maine continue to support that this effluent limit can be achieved through the proper operation of a correctly-sized O/W Separator and implementation of best management practices. EPA has made a BPJ determination based upon the technology-based and performance information to continue with an O&G limit of 15 mg/L in the Draft Permit.

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

EPA believes that the controls in place at Global REVCO (i.e., Draft Permit limit for O&G of 15 mg/L and implementation of best management practices) should ensure that the storm water discharge from the facility does not contribute to the further impairment of Chelsea River. An effluent limit for O&G of 15 mg/L should ensure that the discharge from the facility will be free from oil, grease, and petrochemicals that might produce a visible film on the surface of the water. Best Management Practices being implemented by the facility, which includes a Storm Water Pollution Prevention Plan, ensures that there is a program in place at the facility to limit the amount of pollutants being discharged with storm water runoff. Best Management Practices are fully enforceable permit conditions that serve to prevent pollution, rather than simply treat it.

In reviewing the data for Outfalls 001 and 005, the two outfalls which remain in service, there were only a limited number of instances where the O&G limit was exceeded since the monitoring

began in 1998. Furthermore, there was only one occasion where the O&G limit was exceeded since the completion of improvements made to Outfalls 001 and 005. In March of 2003 an O&G concentration of 17.4 mg/L was detected in Outfall 001, slightly exceeding the permit limit of 15 mg/L. Overall, Global REVCO has demonstrated its ability to meet the O&G permit condition.

4. pH

Massachusetts State Surface Water Quality Standards require the pH of Class SA and Class SB waters to be within the range of 6.5 to 8.5 standard units (S.U.). The pH permit range of 6.5 to 8.5 as identified in the Draft Permit, which is to be monitored on a semi-monthly basis, has been established in accordance with the State Surface Water Quality Standards. The discharge shall not exceed this pH range unless due to natural causes. In addition, there shall be no change from background conditions that would impair any uses assigned to the receiving water class.

A summary of the discharge monitoring data submitted by the facility during the time period of 1998 to 2003 is included as Attachment A to this Fact Sheet. A review of the data for the two outfalls which remain in service (Outfall 001 and 005) shows only one occasion during the previous permit cycle when the pH of the discharge was below 6.5. This was not considered a violation since the Current Permit did not contain an effluent limit for pH.

5. Polynuclear Aromatic Hydrocarbons (PAHs)

Polynuclear Aromatic Hydrocarbons (PAHs) are a group of organic compounds which are found throughout the environment. PAHs are primarily introduced into the environment through the incomplete combustion of organic compounds. PAHs are also present in crude oil and some of the heavier petroleum derivatives and residuals (e.g., fuel oil and asphalt). Spillage or discharge of these products can serve to introduce PAHs into the environment. PAHs will strongly adsorb to suspended particulates and biota and can also bio-accumulate in fish and shellfish.

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

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

The sampling results from this facility did not show the presence of any of the reported 16 PAH compounds confirming a similar trend noted for the majority of the hundreds of quarterly

samples obtained from the South Portland facilities. As a result, the Current Permit was issued with a requirement for quarterly monitoring without any limits for the following seven (7) PAH compounds identified as probable human carcinogens:

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

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

A summary of the discharge monitoring data submitted by the facility during the time period of 1998 to 2003 is included as Attachment A to this Fact Sheet. A separate summary table providing the monitoring results for PAHs with their respective detection limits during the time period of 2001 to 2003 can be found in Attachment B to this Fact Sheet. The reporting limits for each of the seven (7) PAH compounds were typically around 1 µg/L (or 1 part per billion).

EPA has reviewed the discharge monitoring data submitted for PAHs by Global REVCO and other nearby Chelsea Creek petroleum storage terminals since the issuance of their Current Permits (since approximately 1997 - 1998). PAHs were not detected in the storm water discharge from any of the outfalls at the Global REVCO facility during the twenty-three (23) quarterly sampling events. A majority of the petroleum storage terminals located along Chelsea Creek reported similar results.

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

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

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

EPA has added naphthalene to the list of PAH compounds to be reported without limits by the facility in the Draft Permit. Naphthalene is considered an important limiting pollutant parameter based upon the prevalence of this compound in petroleum products and its toxicity (i.e., naphthalene has been identified as a possible human carcinogen).

As noted in Section V.D. of this Fact Sheet, “priority organics” were one of the pollutants identified by the State of Massachusetts as having contributed to the impairment of Chelsea River. The information contained in the *Massachusetts Year 2002 Integrated List of Waters* (MADEP, September 2003) and in the *Boston Harbor Watershed 1999 Water Quality Assessment Report* (MADEP, October 2002) does not clearly identify the basis for identifying priority organics as a problem in Chelsea River. However, MADEP personnel indicated during followup conversations that the primary stressor under the priority organics category was believed to be polychlorinated biphenyls (PCBs). The *Boston Harbor Watershed 1999 Water Quality Assessment Report* notes that a health advisory was issued by Massachusetts in 1988 for Boston Harbor based primarily on the presence of elevated levels of PCBs. The data from Boston Harbor was extrapolated to Chelsea River based on the fact that this also is an estuarine environment. PCBs are not typically associated with petroleum products and as such there are no limits or monitoring requirements for these compounds in the Current as well as the Draft Permit.

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

Refined petroleum products contain numerous types of hydrocarbons. Individual components partition to environmental media on the basis of their physical/chemical properties (e.g., solubility, vapor pressure). Rather than attempt to establish effluent limits for every compound found in a petroleum release, limits are typically established for the compounds that would be the most difficult to remove as well as demonstrate the greatest degree of toxicity. Generally, the higher the solubility of a volatile organic compound (VOC) in water, the more difficult it is to remove.

VOCs such as benzene, toluene, ethylbenzene, and the three xylene compounds (BTEX) are normally found at relatively high concentrations in gasoline and light distillate products (e.g., diesel fuel). BTEX concentrations typically decrease in the heavier grades of petroleum distillate products (e.g., fuel oils). Since many petroleum spills involve gasoline or diesel fuel, a traditional approach for such spills has been to place limits on the individual BTEX components and/or the sum of total BTEX compounds.

Of these four compounds, benzene has one of the highest solubilities, it is one of the most toxic constituents, and it is found at relatively high concentrations in gasoline and diesel fuel. The concentration of benzene in gasoline is approximately 20,000 parts per million (Potter and Simmons, 1998). Because of the reasons mentioned above, benzene can be considered one of the most important limiting pollutant parameters found in gasoline or diesel fuel. Building on this premise, benzene can be used as an indicator-parameter for regulatory as well as characterization purposes of storm water which comes in contact with gasoline and diesel fuel. The primary advantage of using an indicator-parameter is that it can streamline monitoring efforts while simultaneously maintaining an effective level of environmental protection.

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

In establishing the effluent limit for VOCs in the Draft Permit, EPA reviewed all appropriate criteria including the most recent Federal Water Quality Criteria and the quarterly monitoring results for BTEX obtained from the discharges of all of the petroleum bulk stations and terminals along Chelsea River. A summary of the discharge monitoring data submitted by the facility during the time period of 1998 to 2003 is included as Attachment A to this Fact Sheet. A separate summary table providing the monitoring results for BTEX with respective detection limits during the time period of 2001 to 2003 can be found in Attachment C to this Fact Sheet. Benzene concentrations identified in the discharge from the facility were non-detect (i.e., below the laboratory reporting limit of 5.0 µg/L). Similarly, the quarterly sampling events did not detect the presence of toluene, ethylbenzene, and total xylenes in the discharge from the facility.

EPA continues to believe that the approach taken in the Current Permit (i.e., quarterly monitoring for BTEX and the establishment of an effluent limit for benzene) is an effective way of monitoring and controlling the quality of the storm water discharge at the facility and as such has incorporated similar requirements into the Draft Permit. However, EPA has chosen to change the maximum daily effluent limit for benzene in the Draft Permit from 500 µg/L to 51 µg/L. The benzene limit of 51 µg/L represents the current Federal Water Quality Criteria for benzene which has been adopted by the State of Massachusetts (See 314 CMR 4.05(5)(e)). The new limit is based on the human health criteria associated with the consumption of aquatic organisms (USEPA, 2002). EPA believes that this more stringent limit is necessary for the protection of human health and to maintain the water quality standards established under Section 303 of the CWA.

7. Methyl Tertiary-Butyl Ether (MTBE)

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

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

A more limited amount of information is available regarding the aquatic toxicity of MTBE. A public/private partnership was established in 1997 to help review the available information and to develop aquatic toxicity data sufficient to calculate ambient water quality criteria for MTBE. The public/private partnership consisted of representatives from private companies, trade associations, and EPA. Existing aquatic toxicity data were evaluated for acceptability, consistent with EPA guidance, and additional freshwater and marine tests were conducted to satisfy the federal criteria database requirements. Through their efforts, the public/private partnership was able to develop proposed freshwater and marine water quality criteria for MTBE (ES&T, 2002). The preliminary freshwater criteria for acute and chronic exposure effects developed through this workgroup are 151 and 51 milligrams MTBE/Liter of water (or 151,000 µg/L and 51,000 µg/L), respectively. The preliminary marine criteria for acute and chronic exposure effects are 53 and 18 milligrams MTBE/Liter of water (or 53,000 µg/L and 18,000 µg/L), respectively.

Spillage and leaks from above-ground gasoline storage tanks and/or truck loading rack areas can transport quantities of MTBE to surface waters via the storm water drainage system. Discharges of MTBE via the storm water system have the potential to impact the water quality of Chelsea River. Thus, EPA included discharge monitoring requirements for MTBE (without limitations)

as part of Current Permit issued to this facility in 1997. EPA required this monitoring in order to determine if any limitations on MTBE discharges from the terminal was warranted.

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

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

8. Tank-Bottom and Bilge Water

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

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

9. Hydrostatic Test Water Discharges

Occasionally repairs are made at the facility to the tanks and the piping used for the storage and conveyance of petroleum products. To ensure safe working conditions during this maintenance work, storage tanks and/or pipe networks are rigorously cleaned (e.g., "Poly Brushed", "Squeegee Pigged") and certified as being "gas-free." After completing certain maintenance work, the vessels and/or pipe networks may require hydrostatic testing (e.g., to be filled with water and monitored for changes in water levels) before product replacement. Some of the bulk petroleum storage facilities located along Chelsea River use the river as a source of test water. Thus, hydrostatic test water discharge may contain minimal amounts of foreign matter, trace amounts of hydrocarbons, and other background material found in the river. Other facilities use potable water as a source of test water and as a result there may be some residual chlorine present in the discharge. As a precaution, the hydrostatic test water shall be monitored as described below and treated through O/W Separator 5 prior to being discharged to Sales Creek. In addition, the flow of hydrostatic test water into the O/W Separator shall be controlled to prevent it from exceeding the maximum design flow rate of the separator.

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

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

1. Total Suspended Solids (TSS)
2. Oil & Grease (O&G)
3. pH
4. Dissolved Oxygen (DO)
5. Total Residual Chlorine
6. BTEX
7. MTBE
8. PAHs (16 compounds)

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

During discharge (i.e., approximately at the same time the three effluent grab samples are taken), the flow exiting through the O/W Separator and outfall should be observed in order to prevent the inadvertent release of hydrocarbons to the receiving water(s). In the event that there is evidence of such a release (e.g., visible oil sheen and/or noticeable increase in turbidity of discharge water), the permittee shall immediately halt the discharge of hydrostatic test water and take steps to correct the problem.

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

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

10. Prohibition of Non-Storm Water Discharges

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

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

Treated effluent from these activities means that the effluent shall be directed to the O/W Separators either alone or commingled with storm water, prior to discharge from either Outfall 001 and 005. No additional monitoring requirements, other than those specified in the Draft Permit, are necessary for these types of discharges.

11. Storm Water Pollution Prevention Plan

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

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

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

12. Additional Requirements and Conditions

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

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

VI. ENDANGERED SPECIES ACT

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

EPA has reviewed the federal endangered or threatened species of fish, wildlife, or plants to see if any such listed species might potentially be impacted by the re-issuance of this NPDES permit. The review has focused primarily on marine species and anadromous fish since the discharges are to the Chelsea River (Mystic River Watershed) and Sales Creek (Winthrop Bay/Boston Harbor Watershed). Given the urban nature of both of these water bodies, EPA believes that it is unlikely that there would be any listed marine species (See Attachment D) or critical habitat present. Furthermore, effluent limitations and other permit conditions which are in place in this Draft Permit should preclude any adverse effects should there be any incidental contact with listed species either in Chelsea River, Sales Creek, and/or Boston Harbor. EPA has discussed the results of its determination with NMFS and a copy of the Draft Permit has been provided to NMFS for review and comment as part of an informal Section 7 consultation.

VII. ESSENTIAL FISH HABITAT

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq. (1998)), EPA is required to consult with the NMFS if EPA’s action or proposed actions that it funds, permits, or undertakes, “may adversely impact any essential fish habitat” (EFH). The Amendments define EFH as “waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity,” (16 U.S.C. § 1802 (10)). “Adverse impact” means any impact which reduces the quality and/or quantity of EFH (50 C.F.R. § 600.910 (a)). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species’ fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. Id.

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

A review of the relevant essential fish habitat information provided by NMFS indicates that essential fish habitat has been designated for 15 managed species within the NMFS boundaries

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

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

VIII. STATE CERTIFICATION REQUIREMENTS

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

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

The Administrative Record containing the documents forming the basis of this Draft Permit is on file and may be inspected at the EPA Record Center located in Boston at 1 Congress Street between 9:00 a.m. and 5:00 p.m., Monday through Friday, except holidays. Individuals interested in reviewing the Administrative Record should contact the Record Center staff at (617) 918-1440 to schedule an appointment.

All persons, including applicants, who believe any condition of the Draft Permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the U.S. EPA, Office of Ecosystem Protection Attn: Neil Handler, 1 Congress Street, Suite 1100 (CIP), Boston, Massachusetts 02114-2023 or via email to handler.neil@epa.gov. **The comments should reference the name and permit number of the facility for which they are being provided.**

A public hearing will be held after at least thirty (30) days public notice, since the Regional Administrator has determined that significant public interest exists regarding this Draft Permit. In reaching a final decision on the Draft Permit the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after the public hearing, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the

applicant and each person who has submitted written comments or requested notice. Within thirty (30) days following the notice of final permit decision, any interested person may submit a request for a formal evidentiary hearing to reconsider or contest the final decision. Requests for a formal evidentiary hearing must satisfy the Requirements of 40 CFR §124.74. In general, the reader should reference 40 CFR 124–PROCEDURES FOR DECISION MAKING, Subparts A, D, E and F for specifics relative to this section.

X. EPA & MADEP CONTACTS

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

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One Congress Street, Suite 1100 (CIP)
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Telephone: (617) 918-1334 FAX: (617) 918-0334
email: handler.neil@epa.gov

Paul Hogan, Massachusetts Department of Environmental Protection
Division of Watershed Management, Surface Water Discharge Permit Program
627 Main Street, 2nd Floor Worcester, Massachusetts 01608
Telephone: (508) 767-2796 FAX: (508) 791-4131
email: paul.hogan@state.ma.us

Date

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

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FIGURES

ATTACHMENT A

SUMMARY OF DISCHARGE MONITORING REPORT (DMR) RESULTS

(1998 TO 2003)

Global REVCO

NPDES PERMIT NO. MA0003298

ATTACHMENT B

SUMMARY OF DISCHARGE MONITORING REPORT (DMR) RESULTS

(1998 TO 2003)

FOR POLYNUCLEAR AROMATIC COMPOUNDS

Global REVCO

NPDES PERMIT NO. MA0003298

ATTACHMENT C

SUMMARY OF DISCHARGE MONITORING REPORT (DMR) RESULTS

(2001 TO 2003)

FOR VOLATILE ORGANIC COMPOUNDS

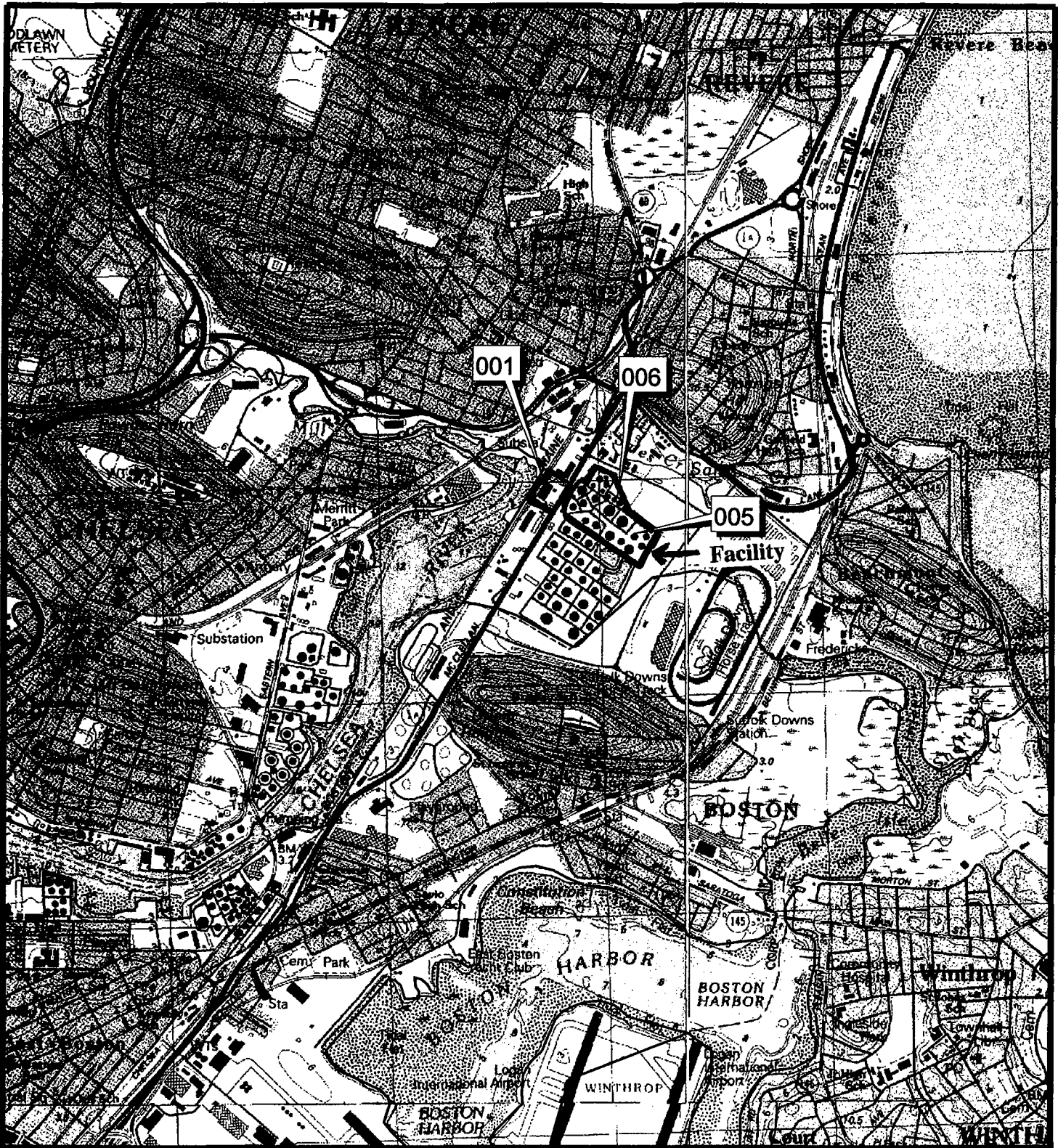
Global REVCO

NPDES PERMIT NO. MA0003298

ATTACHMENT D
ENDANGERED SPECIES LIST

ATTACHMENT E

ESSENTIAL FISH HABITAT DESIGNATION



BASED ON USGS TOPOGRAPHIC MAP FOR
 BOSTON-NORTH and LYNN, MA QUADRANGLE
 PUBLISHED 1985

3-METER CONTOUR INTERVAL



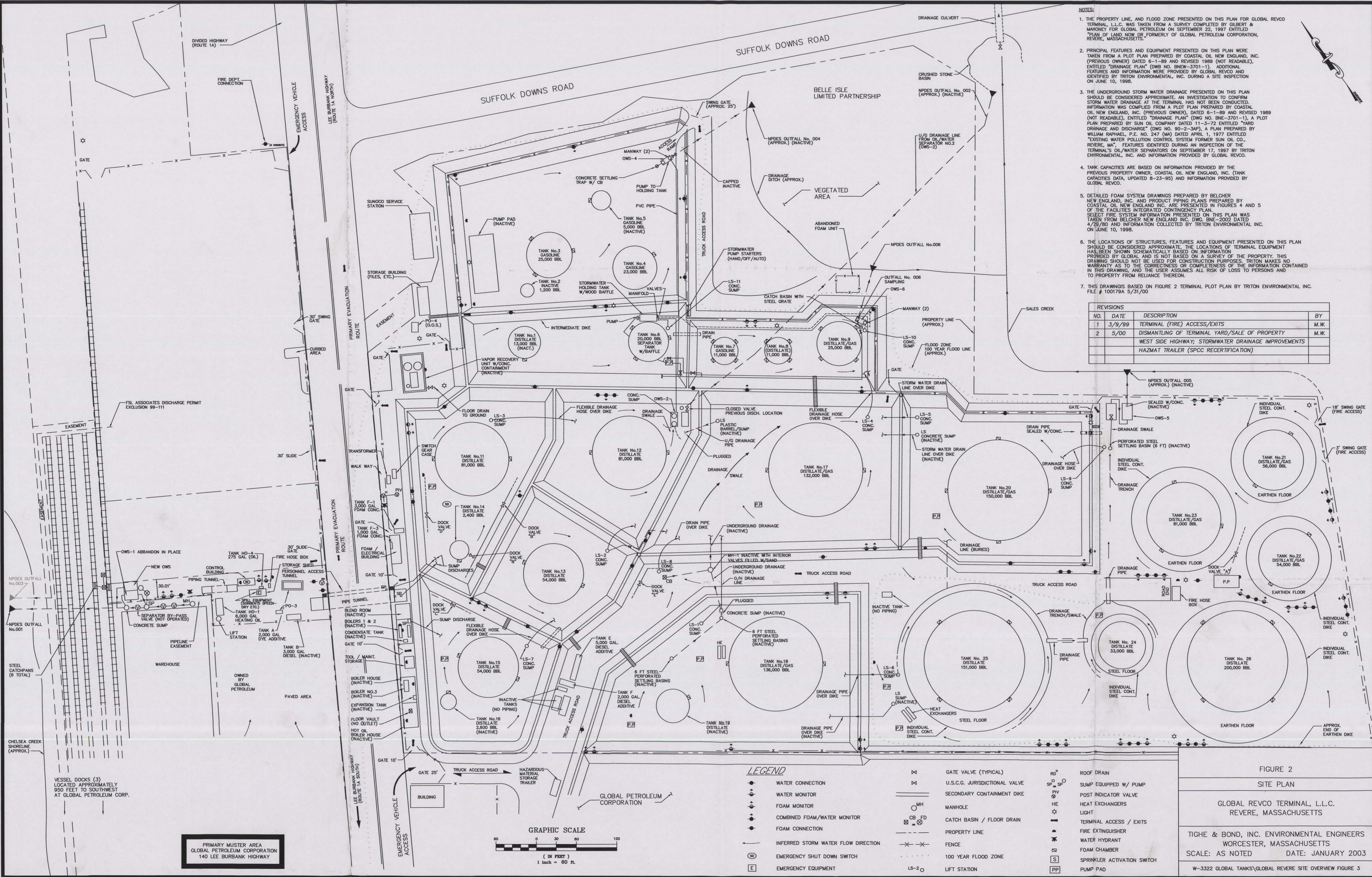
FIGURE 1
SITE LOCUS

GLOBAL REVCO TERMINAL L.L.C.
 REVERE, MASSACHUSETTS

Tighe & Bond

SCALE: 1:25000

FEBRUARY 2003

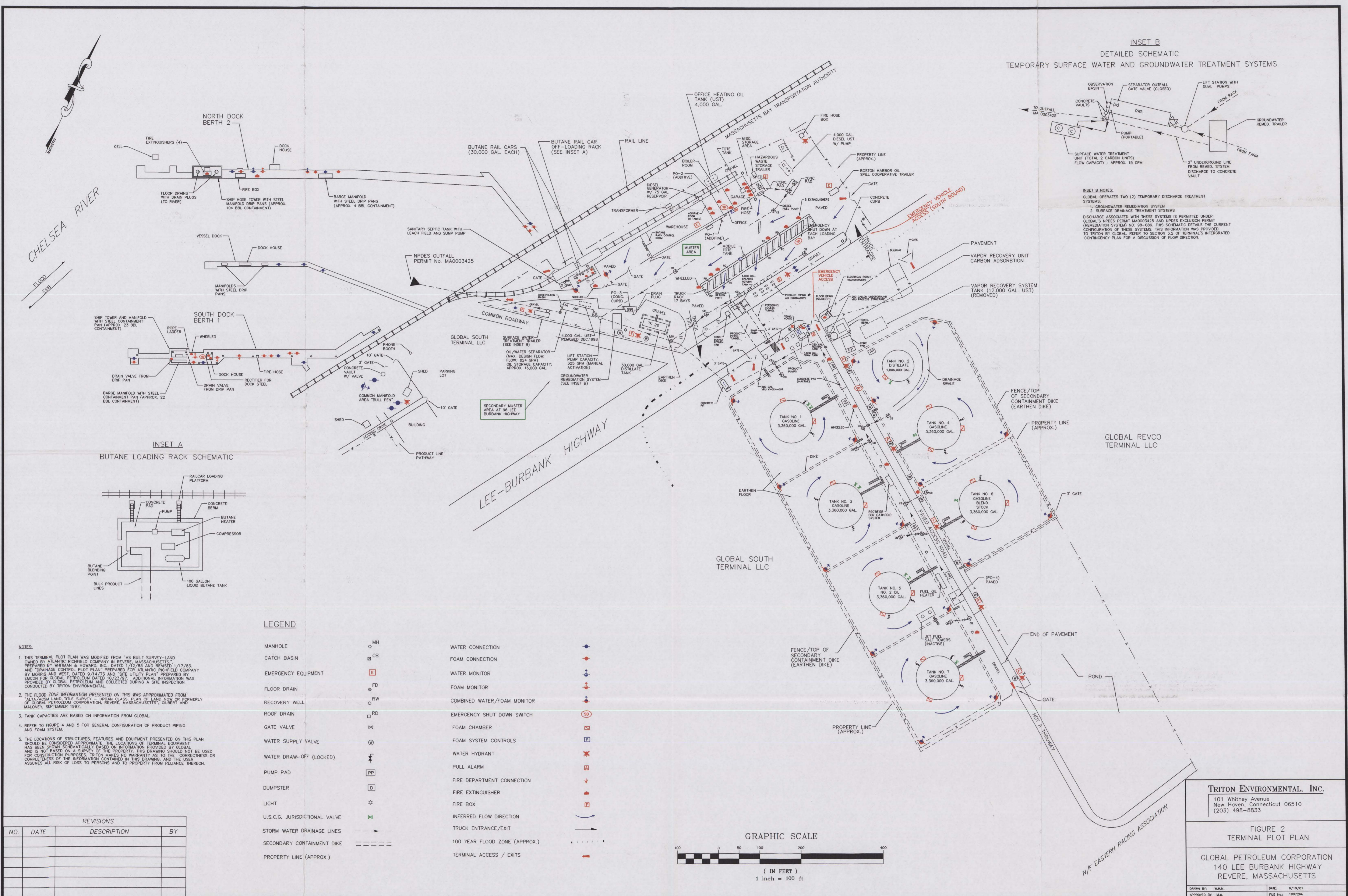


- NOTES:
1. THE PROPERTY LINE, AND FLOOD ZONE PRESENTED ON THIS PLAN FOR GLOBAL REVCO TERMINAL, L.L.C. WAS TAKEN FROM A SURVEY COMPLETED BY GILBERT & MAHONEY FOR GLOBAL PETROLEUM ON SEPTEMBER 22, 1997 ENTITLED "PLAN OF LAND NOW OR FORMERLY OF GLOBAL PETROLEUM CORPORATION, REVERE, MASSACHUSETTS."
 2. PRINCIPAL FEATURES AND EQUIPMENT PRESENTED ON THIS PLAN WERE TAKEN FROM A PLOT PLAN PREPARED BY COASTAL OIL NEW ENGLAND, INC. (PREVIOUS OWNER) DATED 6-1-89 AND REVISED 1989 (NOT READABLE), ENTITLED "DRAINAGE PLAN" (DWG NO. BNE-3701-1). ADDITIONAL FEATURES AND INFORMATION WERE PROVIDED BY GLOBAL REVCO AND IDENTIFIED BY TRITON ENVIRONMENTAL, INC. DURING A SITE INSPECTION ON JUNE 10, 1998.
 3. THE UNDERGROUND STORM WATER DRAINAGE PRESENTED ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE. AN INVESTIGATION TO CONFIRM STORM WATER DRAINAGE AT THE TERMINAL HAS NOT BEEN CONDUCTED. INFORMATION WAS COMPILED FROM A PLOT PLAN PREPARED BY COASTAL OIL NEW ENGLAND, INC. (PREVIOUS OWNER), DATED 6-1-89 AND REVISED 1989 (NOT READABLE), ENTITLED "DRAINAGE PLAN" (DWG NO. BNE-3701-1), A PLOT PLAN PREPARED BY SUN OIL COMPANY DATED 11-3-72 ENTITLED "YARD DRAINAGE AND DISCHARGE" (DWG NO. 90-2-34P), A PLAN PREPARED BY WILLIAM RAPHAEL, P.E. NO. 247 (MA) DATED APRIL 1, 1977 ENTITLED "EXISTING WATER POLLUTION CONTROL SYSTEM FORMER SUN OIL CO., REVERE, MA", FEATURES IDENTIFIED DURING AN INSPECTION OF THE TERMINAL'S OIL/WATER SEPARATORS ON SEPTEMBER 17, 1997 BY TRITON ENVIRONMENTAL, INC. AND INFORMATION PROVIDED BY GLOBAL REVCO.
 4. TANK CAPACITIES ARE BASED ON INFORMATION PROVIDED BY THE PREVIOUS PROPERTY OWNER, COASTAL OIL NEW ENGLAND, INC. (TANK CAPACITY DATA, UPDATED 8-23-85) AND INFORMATION PROVIDED BY GLOBAL REVCO.
 5. DETAILED FOAM SYSTEM DRAWINGS PREPARED BY BELCHER NEW ENGLAND, INC. AND PRODUCT PIPING PLANS PREPARED BY COASTAL OIL NEW ENGLAND INC. ARE PRESENTED IN FIGURES 4 AND 5 OF THE FACILITIES INTEGRATED CONTINGENCY PLAN. SELECT FIRE SYSTEM INFORMATION PRESENTED ON THIS PLAN WAS TAKEN FROM BELCHER NEW ENGLAND INC. DWG. BNE-2002 DATED 4/28/80 AND INFORMATION COLLECTED BY TRITON ENVIRONMENTAL INC. ON JUNE 10, 1998.
 6. THE LOCATIONS OF STRUCTURES, FEATURES AND EQUIPMENT PRESENTED ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATIONS OF TERMINAL EQUIPMENT HAS BEEN SHOWN SCHEMATICALLY BASED ON INFORMATION PROVIDED BY GLOBAL AND IS NOT BASED ON A SURVEY OF THE PROPERTY. THIS DRAWING SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES. TRITON MAKES NO WARRANTY AS TO THE CORRECTNESS OR COMPLETENESS OF THE INFORMATION CONTAINED IN THIS DRAWING, AND THE USER ASSUMES ALL RISK OF LOSS TO PERSONS AND TO PROPERTY FROM RELIANCE THEREON.
 7. THIS DRAWING IS BASED ON FIGURE 2 TERMINAL PLOT PLAN BY TRITON ENVIRONMENTAL INC. FILE # 100178A 5/31/00

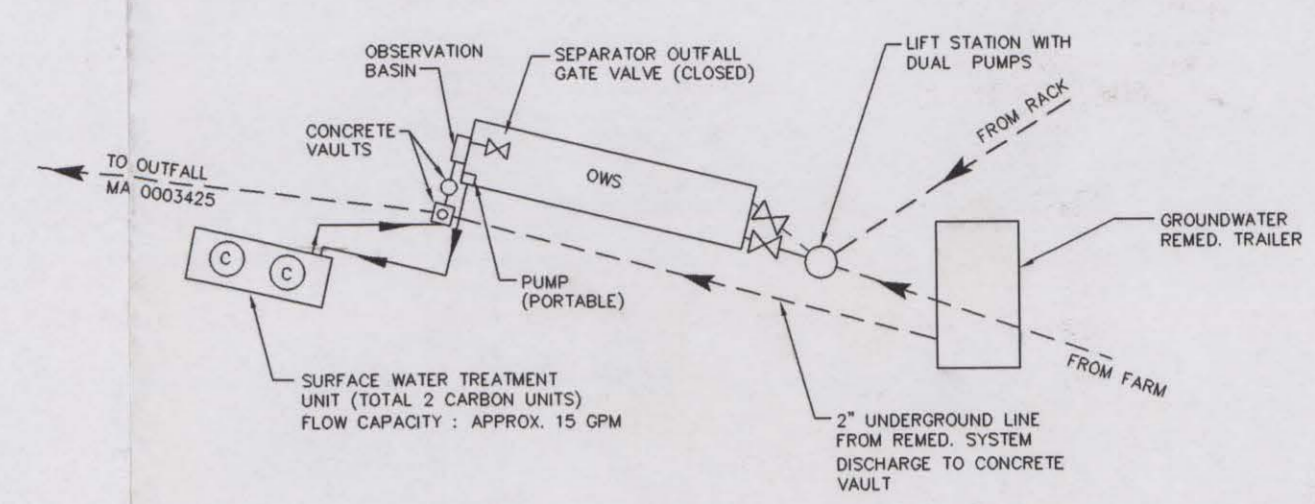
NO.	DATE	DESCRIPTION	BY
1	3/9/99	TERMINAL (FIRE) ACCESS/EXITS	M.W.
2	5/00	DISMANTLING OF TERMINAL YARD/SALE OF PROPERTY WEST SIDE HIGHWAY; STORMWATER DRAINAGE IMPROVEMENTS HAZMAT TRAILER (SPCC RECERTIFICATION)	M.W.

FIGURE 2
SITE PLAN
GLOBAL REVCO TERMINAL, L.L.C.
REVERE, MASSACHUSETTS
TIGHE & BOND, INC. ENVIRONMENTAL ENGINEERS
WORCESTER, MASSACHUSETTS
SCALE: AS NOTED DATE: JANUARY 2003
W-3322 GLOBAL TANKS\GLOBAL REVERE SITE OVERVIEW FIGURE 3

PRIMARY MUSTER AREA
GLOBAL PETROLEUM CORPORATION
140 LEE BURBANK HIGHWAY

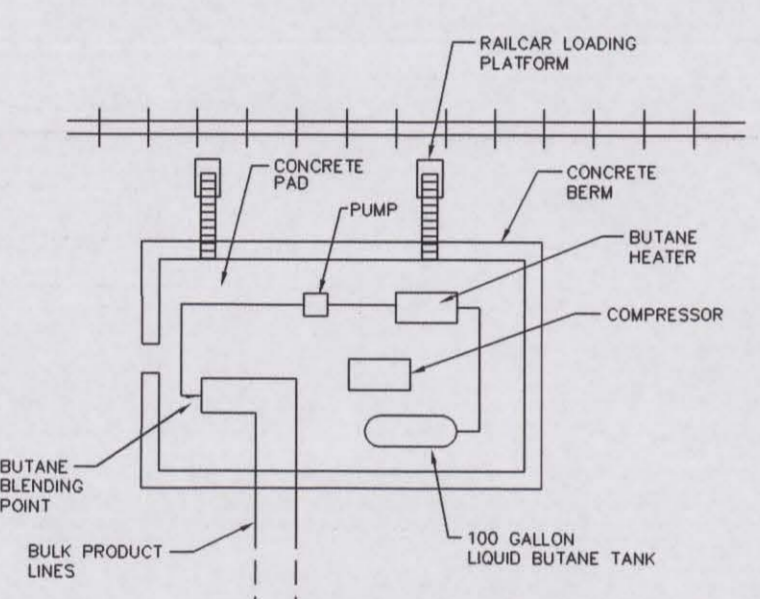


INSET B
DETAILED SCHEMATIC
TEMPORARY SURFACE WATER AND GROUNDWATER TREATMENT SYSTEMS



INSET B NOTES:
 1. GLOBAL OPERATES TWO (2) TEMPORARY DISCHARGE TREATMENT SYSTEMS:
 1. GROUNDWATER REMEDIATION SYSTEM
 2. SURFACE DRAINAGE TREATMENT SYSTEMS
 DISCHARGE ASSOCIATED WITH THESE SYSTEMS IS PERMITTED UNDER GLOBAL'S NPDES PERMIT MA0003425 AND NPDES EXCLUSION PERMIT (PREVENTION SYSTEM) NO. 98-086. THIS SCHEMATIC DETAILS THE CURRENT CONFIGURATION OF THESE SYSTEMS. THIS INFORMATION WAS PROVIDED TO TRITON BY GLOBAL. REFER TO SECTION 3.2 OF TERMINAL'S INTERPRETED CONTINGENCY PLAN FOR A DISCUSSION OF FLOW DIRECTION.

INSET A
BUTANE LOADING RACK SCHEMATIC

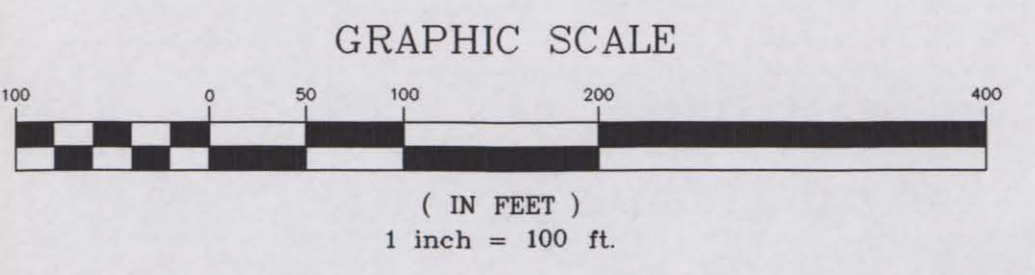


LEGEND

- | | | | |
|-------------------------------|------|-------------------------------|----|
| MANHOLE | MH | WATER CONNECTION | ● |
| CATCH BASIN | CB | FOAM CONNECTION | ◆ |
| EMERGENCY EQUIPMENT | E | WATER MONITOR | ⬇ |
| FLOOR DRAIN | FD | FOAM MONITOR | ⬇ |
| RECOVERY WELL | RW | COMBINED WATER/FOAM MONITOR | ⬇ |
| ROOF DRAIN | RD | EMERGENCY SHUT DOWN SWITCH | SO |
| GATE VALVE | ∩ | FOAM CHAMBER | □ |
| WATER SUPPLY VALVE | ⊙ | FOAM SYSTEM CONTROLS | □ |
| WATER DRAW-OFF (LOCKED) | ⬇ | WATER HYDRANT | ⊗ |
| PUMP PAD | PP | PULL ALARM | ⬇ |
| DUMPSTER | D | FIRE DEPARTMENT CONNECTION | ⬇ |
| LIGHT | ☆ | FIRE EXTINGUISHER | ⬇ |
| U.S.C.G. JURISDICTIONAL VALVE | ∩ | FIRE BOX | ⬇ |
| STORM WATER DRAINAGE LINES | --- | INFERRED FLOW DIRECTION | → |
| SECONDARY CONTAINMENT DIKE | ---- | TRUCK ENTRANCE/EXIT | → |
| PROPERTY LINE (APPROX.) | ---- | 100 YEAR FLOOD ZONE (APPROX.) | ⋯ |
| | | TERMINAL ACCESS / EXITS | → |

- NOTES:
- THIS TERMINAL PLOT PLAN WAS MODIFIED FROM "AS BUILT SURVEY-LAND OWNED BY ATLANTIC RICHFIELD COMPANY IN REVERE, MASSACHUSETTS," PREPARED BY WHITMAN & HOWARD, INC., DATED 1/12/83 AND REVISED 1/17/83, AND "DRAINAGE CONTROL PLAN" PREPARED FOR ATLANTIC RICHFIELD COMPANY BY MORRIS AND WEST, DATED 9/14/73 AND "SITE UTILITY PLAN" PREPARED BY EMCOR FOR GLOBAL PETROLEUM DATED 10/23/97. ADDITIONAL INFORMATION WAS PROVIDED BY GLOBAL PETROLEUM AND COLLECTED DURING A SITE INSPECTION CONDUCTED BY TRITON ENVIRONMENTAL.
 - THE FLOOD ZONE INFORMATION PRESENTED ON THIS WAS APPROXIMATED FROM "ALTA/ACSM LAND TITLE SURVEY - URBAN CLASS PLAN OF LAND NOW OR FORMERLY OF GLOBAL PETROLEUM CORPORATION, REVERE, MASSACHUSETTS," GILBERT AND MALONEY, SEPTEMBER 1997.
 - TANK CAPACITIES ARE BASED ON INFORMATION FROM GLOBAL.
 - REFER TO FIGURE 4 AND 5 FOR GENERAL CONFIGURATION OF PRODUCT PIPING AND FOAM SYSTEM.
 - THE LOCATIONS OF STRUCTURES, FEATURES AND EQUIPMENT PRESENTED ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATIONS OF TERMINAL EQUIPMENT HAS BEEN SHOWN SCHEMATICALLY BASED ON INFORMATION PROVIDED BY GLOBAL AND IS NOT BASED ON A SURVEY OF THE PROPERTY. THIS DRAWING SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES. TRITON MAKES NO WARRANTY AS TO THE CORRECTNESS OR COMPLETENESS OF THE INFORMATION CONTAINED IN THIS DRAWING, AND THE USER ASSUMES ALL RISK OF LOSS TO PERSONS AND TO PROPERTY FROM RELIANCE THEREON.

REVISIONS			
NO.	DATE	DESCRIPTION	BY



TRITON ENVIRONMENTAL, INC.
 101 Whitney Avenue
 New Haven, Connecticut 06510
 (203) 498-8833

FIGURE 2
TERMINAL PLOT PLAN

GLOBAL PETROLEUM CORPORATION
 140 LEE BURBANK HIGHWAY
 REVERE, MASSACHUSETTS

DRAWN BY: W.H.M. DATE: 8/19/01
 APPROVED BY: M.M. FILE No.: 100728A

ATTACHMENT A

SUMMARY OF DISCHARGE MONITORING REPORT (DMR) RESULTS

(1998 TO 2003)

GLOBAL REVC0, LLC

NPDES PERMIT NO. MA0003298

NODI	490 NO DISCHARGE INDICATOR CODES DESCRIPTION
A	GENERAL PERMIT EXEMPTION
B	BELOW DETECT LIMIT/NO DETECT
C	NO DISCHARGE
D	LOST SAMPLE
E	ANALYSIS NOT CONDUCTED
F	INSUFFICIENT FLOW FOR SAMPLING
G	SAMPLING EQUIPMENT FAILURE
H	INVALID TEST
I	LAND APPLIED WASTE WATER
J	RECYCLED, WATER-CLOSED SYSTEM
K	FLOOD DISASTER
L	DMR RECEIVED BUT NOT ENTERED
M	NOT APPLIC DURING SLDGE MONITOR PERIOD
N	NOT TRACKED IN PCS FOR THIS PERIOD
Q	NOT QUANTIFIABLE
1	WRONG FLOW
2	OPERATIONS SHUTDOWN
3	LOW LEVEL PRODUCTION
4	LAGOON PROCESSING
5	FROZEN CONDITIONS
6	PRODUCTION BASED LIMITS DONT APPLY TO MP
7	DMR RECEIVED, PRODUCTION OR FLOW RELATED
8	OTHER
9	MONITORING IS CONDITIONAL/NOT REQ THIS MP

GLOBAL REVCO LLC DMR RESULTS (1998 - 2003)

NPDES PERMIT NO. MA0003298

QL ***** QL

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Flow Rate (gal/min)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Curve

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98			650		0
05/31/98			650		0
06/30/98			650		0
07/31/98	E				
08/31/98			650		0
09/30/98			235		0
10/31/98	C				
11/30/98			73		0
12/31/98			60		0
01/31/99			201		0
02/28/99			106		0
03/31/99			55		0
04/30/99			220		0
05/31/99			182		0
06/30/99			121		0
07/31/99			163		0
08/31/99			220		0
09/30/99			588		0
10/31/99			127		0
11/30/99			185		0
12/31/99			200		0
01/31/00			330		0
02/29/00			220		0
03/31/00			357		0
04/30/00			551		0
05/31/00			145		0
06/30/00			260		0
07/31/00			142		0
08/31/00			123		0
09/30/00			220		0
10/31/00			182		0
11/30/00			320		0
12/31/00			557		0
01/31/01	C				
02/28/01	C				
03/31/01			12		0
04/30/01	E				
05/31/01			557		0
06/30/01			280		0
07/31/01			167		0
08/31/01			536		0
09/30/01			729		0
10/31/01	C				
11/30/01	C				
12/31/01			30		0
01/31/02			75		0
02/28/02			75		0
03/31/02			75		0
04/30/02			75		0
05/31/02			75		0
06/30/02			75		0
07/31/02	C				
08/31/02			75		0
09/30/02			75		0

10/31/02	75	0
11/30/02	75	0
12/31/02	75	0
01/31/03	75	0
02/28/03	75	0
03/31/03	75	0
04/30/03	75	0
05/31/03	75	0
06/30/03	75	0
07/31/03	75	0
08/31/03	75	0
09/30/03	75	0
11/30/03	75	0
12/31/03	75	0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: pH (S.U.)

Permit Limit: Report Only

Monitoring Frequency: Once/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations Monthly <u>Avg.</u>	Daily <u>Max.</u>
04/30/98	E				
05/31/98	E				
06/30/98			6.65		0
07/31/98			6.84		0
08/31/98			7.36		0
09/30/98			6.58		0
10/31/98	C				
11/30/98	E				
12/31/98			6.95		0
01/31/99			6.43		0
02/28/99	E				
03/31/99			6.9		0
04/30/99	E				
05/31/99			7.0		0
06/30/99			7.1		0
07/31/99			6.96		0
08/31/99			7.09		0
09/30/99			7.45		0
10/31/99			6.97		0
11/30/99			7.42		0
12/31/99			7.44		0
01/31/00			7.66		0
02/29/00			6.64		0
03/31/00			7.38		0
04/30/00			6.90		0
05/31/00			8.12		0
06/30/00			9.45		0
07/31/00			8.2		0
08/31/00			8.32		0
09/30/00			7.08		0
10/31/00			7.05		0
11/30/00			8.22		0
12/31/00			7.74		0
01/31/01	C				
03/31/01			8.09		0
02/28/01			7.21		0
04/30/01			7.15		0
05/31/01			8.78		0
06/30/01			8.08		0
07/31/01			8.20		0
08/31/01			7.87		0
09/30/01			8.17		0
10/31/01	C				
11/30/01	C				

12/31/01		7.84	0
01/31/02		8.31	0
02/28/02		8.40	0
03/31/02		8.35	0
04/30/02		8.31	0
05/31/02		8.21	0
06/30/02		8.29	0
07/31/02	C		
08/31/02		7.92	0
09/30/02		8.11	0
10/31/02		8.07	0
11/30/02		8.41	0
12/31/02		8.08	0
01/31/03		8.25	0
02/28/03		7.74	0
03/31/03		9.02	0
04/30/03		8.87	0
05/31/03		9.02	0
06/30/03		7.85	0
07/31/03		7.08	0
08/31/03		9.14	0
09/30/03		8.87	0
11/30/03		8.43	0
12/31/03		8.49	0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Suspended Solids (mg/L)

Permit Limit: Monthly Avg. 30 mg/L; Daily Max. 100 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported</u>	<u>Reported</u>	<u>Percent Violations</u>	
		<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98		9.7	19.2	0	0
05/31/98		14.9	29.0	0	0
06/30/98		5.8	11.5	0	0
07/31/98		12.75	25.5	0	0
08/31/98		11.8	12.5	0	0
09/30/98		28.75	35.0	0	0
10/31/98	C				
11/30/98		9.0	9.0	0	0
12/31/98		17.5	17.5	0	0
01/31/99		10.5	10.5	0	0
02/28/99		43.7	102.0	46	2
03/31/99		46.0	81.0	53	0
04/30/99		19.0	19.0	0	0
05/31/99		12.8	44.5	0	0
06/30/99		14.0	14.0	0	0
07/31/99		19.75	25.0	0	0
08/31/99		0.0	0.0	0	0
09/30/99		27.75	45.5	0	0
10/31/99		10.45	12.4	0	0
11/30/99		0.0	0.0	0	0
12/31/99		27.83	33.0	0	0
01/31/00		2.75	5.50	0	0
02/29/00		27.0	46.0	0	0
03/31/00		39.67	90.0	32	0
04/30/00		11.65	12.8	0	0
05/31/00		13.3	48.0	0	0
06/30/00		9.25	21.5	0	0
07/31/00		2.8	11.2	0	0
08/31/00		0.0	0.0	0	0
09/30/00		7.36	22.8	0	0
10/31/00		7.2	21.6	0	0
11/30/00		48.5	194	62	94
12/31/00		0.0	0.0	0	0
01/31/01	C				

03/31/01		0.0	0.0	0	0
02/28/01		7.6	7.6	0	0
04/30/01		0.0	0.0	0	0
05/31/01		0.0	0.0	0	0
06/30/01		0.0	0.0	0	0
07/31/01		4.5	9.0	0	0
08/31/01		0.0	0.0	0	0
09/30/01		0.0	0.0	0	0
10/31/01	C				
11/30/01	C				
12/31/01		4.4	13.2	0	0
01/31/02		7.76	14.4	0	0
02/28/02		13.4	40.1	0	0
03/31/02		36.9	74.0	23	0
04/30/02		14.0	20.4	0	0
05/31/02		34.1	100	14	0
06/30/02		15.6	32	0	0
07/31/02	C				
08/31/02		9.6	9.6	0	0
09/30/02		2.5	10	0	0
10/31/02		10.3	24.0	0	0
11/30/02		11.3	45.2	0	0
12/31/02		9.3	20.4	0	0
01/31/03		5.2	10.4	0	0
02/28/03		52	84	73	0
03/31/03		8.3	41.5	0	0
04/30/03		7.3	19.2	0	0
05/31/03		0.0	0.0	0	0
06/30/03		0.0	0.0	0	0
07/31/03		160	160	433	60
08/31/03		1.1	5.7	0	0
09/30/03		14	42	0	0
11/30/03		0.0	0.0	0	0
12/31/03		0.0	0.0	0	0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Oil & Grease (mg/L)

Permit Limit: Daily Max. 15 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
04/30/98			0.0		0
05/31/98			5.8		0
06/30/98			5.3		0
07/31/98			6.3		0
08/31/98			80		433
09/30/98			0.0		0
10/31/98	C				
11/30/98			0.0		0
12/31/98			0.0		0
01/31/99			7.6		0
02/28/99			0.0		0
03/31/99			0.0		0
04/30/99			0.0		0
05/31/99			0.0		0
06/30/99			5.81		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
11/30/99			0.0		0
12/31/99			0.0		0
01/31/00			0.0		0
02/29/00			0.0		0
03/31/00			0.0		0

04/30/00		0.0	0
05/31/00		0.0	0
06/30/00		0.0	0
07/31/00		0.0	0
08/31/00		0.0	0
09/30/00		0.0	0
10/31/00		0.0	0
11/30/00		0.0	0
12/31/00		29.3	95
01/31/01	C		
03/31/01		0.0	0
02/28/01		0.0	0
04/30/01		0.0	0
05/31/01		0.0	0
06/30/01		0.0	0
07/31/01		0.0	0
08/31/01		0.0	0
09/30/01		0.0	0
10/31/01	C		
11/30/01	C		
12/31/01		0.0	0
01/31/02		0.0	0
02/28/02		10.2	0
03/31/02		5.5	0
04/30/02		0.0	0
05/31/02		0.0	0
06/30/02		0.0	0
07/31/02	C		
08/31/02		0.0	0
09/30/02		0.0	0
10/31/02		0.0	0
11/30/02		0.0	0
12/31/02		5.3	0
01/31/03		0.0	0
02/28/03		10.7	0
03/31/03		17.4	16
04/30/03		10	0
05/31/03		0.0	0
06/30/03		0.0	0
07/31/03		8.2	0
08/31/03		0.0	0
09/30/03		0.0	0
11/30/03		5.5	0
12/31/03		0.0	0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Flow (Mgal/month)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Estimate

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported	Reported	Percent Violations	
		Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.
04/30/98		819.0		0	
05/31/98		399.8		0	
06/30/98		468.0		0	
07/31/98		468.0		0	
08/31/98		116.5		0	
09/30/98		122.8		0	
10/31/98	C				
11/30/98		74.46		0	
12/31/98		25.2		0	
01/31/99		180.9		0	
02/28/99		84.8		0	
03/31/99		38.52		0	
04/30/99		39.6		0	
05/31/99		38.96		0	

06/30/99		123.42	0
07/31/99		47.34	0
08/31/99		63.06	0
09/30/99		301.44	0
10/31/99		98.91	0
11/30/99		88.80	0
12/31/99		53.20	0
01/31/00		103.80	0
02/29/00		91.80	0
03/31/00		142.56	0
04/30/00		189.78	0
05/31/00		49.75	0
06/30/00		48.9	0
07/31/00		89.13	0
08/31/00		53.2	0
09/30/00		67.4	0
10/31/00		111.6	0
11/30/00		333.4	0
12/31/00		215.2	0
01/31/01	C		
03/31/01		5.7	0
02/28/01		27.0	0
04/30/01		367.6	0
05/31/01		167.1	0
06/30/01		444.0	0
07/31/01		52.6	0
08/31/01		125.3	0
09/30/01		44.3	0
10/31/01	C		
11/30/01	C		
12/31/01		9.9	0
01/31/02		14.0	0
02/28/02		21.0	0
03/31/02		22.5	0
04/30/02		27.0	0
05/31/02		38.2	0
06/30/02		29.8	0
07/31/02	C		
08/31/02		18.0	0
10/31/02		27.6	0
11/30/02		23.6	0
12/31/02		22.5	0
01/31/03		0.01***	0
02/28/03		0.01	0
03/31/03		0.04	0
04/30/03		0.03	0
05/31/03		0.02	0
06/30/03		0.04	0
07/31/03		0.01	0
08/31/03		0.41	0
09/30/03		0.03	0
11/30/03		1.08	0
12/31/03		0.01	0

*** For the reporting periods prior to January 31, 2003, Total Flow was reported on the DMRs in the units of thousands of gallons/month. Starting with the reporting period ending January 31, 2003, Total Flow was reported in the units of millions of gallons/month (Mgal/month).

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Methyl Tertiary-Butyl Ether (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			12		0
09/30/98			19		0

12/31/98	12.0	0
03/31/99	4.8	0
06/30/99	0.0	0
09/30/99	0.0	0
12/31/99	0.0	0
03/31/00	0.0	0
06/30/00	0.0	0
09/30/00	0.0	0
12/31/00	0.0	0
03/31/01	52	0
06/30/01	170	0
09/30/01	1.2	0
12/31/01	0.0	0
03/31/02	0.0	0
06/30/02	0.0	0
09/30/02	0.0	0
12/31/02	0.0	0
03/31/03	0.0	0
06/30/03	0.0	0
09/30/03	0.0	0
12/31/03	0.0	0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Toluene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring</u> <u>Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Monthly <u>Avg.</u>	Violations Daily <u>Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			1.5		0
06/30/99			0.0		0
09/30/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00			0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01			0.0		0
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02			0.0		0
12/31/02			0.0		0
03/31/03			0.0		0
06/30/03			0.0		0
09/30/03			0.0		0
12/31/03			0.0		0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzene (ug/L)

Permit Limit: 500 ug/L

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring</u> <u>Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Monthly <u>Avg.</u>	Violations Daily <u>Max.</u>
06/30/98			0.0		0

09/30/98	0.0	0
12/31/98	0.0	0
03/31/99	1.9	0
06/30/99	0.0	0
09/30/99	0.0	0
12/31/99	0.0	0
03/31/00	0.0	0
06/30/00	0.0	0
09/30/00	0.0	0
12/31/00	0.0	0
03/31/01	0.0	0
06/30/01	0.0	0
09/30/01	0.0	0
12/31/01	0.0	0
03/31/02	0.0	0
06/30/02	0.0	0
09/30/02	0.0	0
12/31/02	0.0	0
03/31/03	0.0	0
06/30/03	0.0	0
09/30/03	0.0	0
12/31/03	0.0	0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(b)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00			0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01			0.0		0
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02			0.0		0
12/31/02			0.0		0
03/31/03			0.0		0
06/30/03			0.0		0
09/30/03			0.0		0
12/31/03			0.0		0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(k)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0

09/30/98	0.0	0
12/31/98	0.0	0
03/31/99	0.0	0
06/30/99	0.0	0
09/30/99	0.0	0
12/31/99	0.0	0
03/31/00	0.0	0
06/30/00	0.0	0
09/30/00	0.0	0
12/31/00	0.0	0
03/31/01	0.0	0
06/30/01	0.0	0
09/30/01	0.0	0
12/31/01	0.0	0
03/31/02	0.0	0
06/30/02	0.0	0
09/30/02	0.0	0
12/31/02	0.0	0
03/31/03	0.0	0
06/30/03	0.0	0
09/30/03	0.0	0
12/31/03	0.0	0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00			0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01			0.0		0
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02			0.0		0
12/31/02			0.0		0
03/31/03			0.0		0
06/30/03			0.0		0
09/30/03			0.0		0
12/31/03			0.0		0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Chrysene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
06/30/98			0.0		0

09/30/98	0.0	0
12/31/98	0.0	0
03/31/99	0.0	0
06/30/99	0.0	0
09/30/99	0.0	0
12/31/99	0.0	0
03/31/00	0.0	0
06/30/00	0.0	0
09/30/00	0.0	0
12/31/00	0.0	0
03/31/01	0.0	0
06/30/01	0.0	0
09/30/01	0.0	0
12/31/01	0.0	0
03/31/02	0.0	0
06/30/02	0.0	0
09/30/02	0.0	0
12/31/02	0.0	0
03/31/03	0.0	0
06/30/03	0.0	0
09/30/03	0.0	0
12/31/03	0.0	0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Ethylbenzene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00			0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01			0.0		0
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02			0.0		0
12/31/02			0.0		0
03/31/03			0.0		0
06/30/03			0.0		0
09/30/03			0.0		0
12/31/03			0.0		0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Indeno (1,2,3-cd)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
06/30/98			0.0		0

09/30/98	0.0	0
12/31/98	0.0	0
03/31/99	0.0	0
06/30/99	0.0	0
09/30/99	0.0	0
12/31/99	0.0	0
03/31/00	0.0	0
06/30/00	0.0	0
09/30/00	0.0	0
12/31/00	0.0	0
03/31/01	0.0	0
06/30/01	0.0	0
09/30/01	0.0	0
12/31/01	0.0	0
03/31/02	0.0	0
06/30/02	0.0	0
09/30/02	0.0	0
12/31/02	0.0	0
03/31/03	0.0	0
06/30/03	0.0	0
09/30/03	0.0	0
12/31/03	0.0	0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00			0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01			0.0		0
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02			0.0		0
12/31/02			0.0		0
03/31/03			0.0		0
06/30/03			0.0		0
09/30/03			0.0		0
12/31/03			0.0		0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Dibenzo(a,h)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
06/30/98			0.0		0

09/30/98	0.0	0
12/31/98	0.0	0
03/31/99	0.0	0
06/30/99	0.0	0
09/30/99	0.0	0
12/31/99	0.0	0
03/31/00	0.0	0
06/30/00	0.0	0
09/30/00	0.0	0
12/31/00	0.0	0
03/31/01	0.0	0
06/30/01	0.0	0
09/30/01	0.0	0
12/31/01	0.0	0
03/31/02	0.0	0
06/30/02	0.0	0
09/30/02	0.0	0
12/31/02	0.0	0
03/31/03	0.0	0
06/30/03	0.0	0
09/30/03	0.0	0
12/31/03	0.0	0

001 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Xylenes (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			2.4		0
06/30/99			0.0		0
09/30/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00			0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01			0.0		0
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02			0.0		0
12/31/02			0.0		0
03/31/03			0.0		0
06/30/03			0.0		0
09/30/03			0.0		0
12/31/03			0.0		0

GLOBAL REVCO LLC DMR RESULTS (1998 - 2003)

NPDES PERMIT NO. MA0003298

QL***** QL

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Flow Rate (gal/min)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Curve

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98			650		0
05/31/98			650		0
06/30/98			650		0
07/31/98			650		0
08/31/98			650		0
10/31/98			645		0
11/30/98			239		0
12/31/98			155		0
01/31/99	E				
02/28/99			669.5		0
03/31/99			122		0
04/30/99			568		0
05/31/99			135		0
06/30/99			313		0
07/31/99			421		0
08/31/99			568		0
09/30/99			1519		0
10/31/99			306		0
11/30/99			477		0
12/31/99			568		0
01/31/00			568		0
02/29/00			697		0
03/31/00			755		0
04/30/00			210		0
05/31/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: pH (S.U.)

Permit Limit: Report Only

Monitoring Frequency: Once/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98	E				
05/31/98	E				
06/30/98			7.19		0
07/31/98			6.78		0
08/31/98			7.33		0
10/31/98			7.0		0
11/30/98			7.8		0
12/31/98			7.5		0
01/31/99	E				

02/28/99		6.89	0
03/31/99		7.36	0
04/30/99	E		
05/31/99		8.2	0
06/30/99		1.8	0
07/31/99		7.51	0
08/31/99		7.13	0
09/30/99		8.03	0
10/31/99		7.72	0
11/30/99		7.50	0
12/31/99		7.64	0
01/31/00		7.50	0
02/29/00		6.76	0
03/31/00		7.44	0
04/30/00		7.40	0
05/31/00	C***		

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Suspended Solids (mg/L)

Permit Limit: Monthly Avg. 30 mg/L; Daily Max. 100 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported	Reported	Percent Violations	
		Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.
04/30/98		16.55	30.5	0	0
05/31/98		1.8	29	0	0
06/30/98		6.0	12.0	0	0
07/31/98		79.5	148.0	165	48
08/31/98		7.8	8.0	0	0
10/31/98		16.75	33.5	0	0
11/30/98		42.0	79.0	40	0
12/31/98		10.5	10.5	0	0
01/31/99	E				
02/28/99		19.5	33.0	0	0
03/31/99		165.5	314	452	214
04/30/99		0.0	0.0	0	0
05/31/99		8.25	16.5	0	0
06/30/99		0.0	0.0	0	0
07/31/99		0.0	0.0	0	0
08/31/99		4.0	8.0	0	0
09/30/99		0.0	0.0	0	0
10/31/99		3.4	6.8	0	0
11/30/99		0.0	0.0	0	0
12/31/99		6.8	7.5	0	0
01/31/00		0.0	0.0	0	0
02/29/00		260.0	260.0	767	160
03/31/00		49.33	62.0	64	0
04/30/00		25.0	25.0	0	0
05/31/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Oil & Grease (mg/L)

Permit Limit: Daily Max. 15 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
04/30/98			0.0		0
05/31/98			0.0		0
06/30/98			6.1		0
07/31/98			9.8		0
08/31/98			0.0		0
10/31/98			0.0		0
11/30/98			0.0		0
12/31/98			0.0		0
01/31/99	E				
02/28/99			0.0		0
03/31/99			0.0		0
04/30/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
11/30/99			0.0		0
12/31/99			0.0		0
01/31/00			0.0		0
02/29/00			0.0		0
03/31/00			0.0		0
04/30/00			0.0		0
05/31/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Flow (Mgal/month)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Estimate

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
04/30/98		819.0		0	
05/31/98		399.8		0	
06/30/98		936.0		0	
07/31/98		312.0		0	
08/31/98		300.5		0	
10/31/98		37.9		0	
11/30/98		153.24		0	
12/31/98		651		0	
01/31/99	E				
02/28/99		482.04		0	
03/31/99		99.24		0	
04/30/99		102.24		0	
05/31/99		50.9		0	
06/30/99		319.26		0	
07/31/99		122.2		0	
08/31/99		162.66		0	
09/30/99		778.68		0	

10/31/99	255.36	0
11/30/99	228.96	0
12/31/99	137.28	0
01/31/00	257.84	0
02/29/00	167.28	0
03/31/00	368.58	0
04/30/00	201.60	0
05/31/00	C***	

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Methyl Tertiary-Butyl Ether (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			30		0
09/30/98			12		0
12/31/98			96		0
03/31/99			360		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			26		0
10/31/99			0.0		0
12/31/99			120		0
03/31/00			37.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Toluene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			20		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzene (ug/L)

Permit Limit: 500 ug/L

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			3.5		0
03/31/99			57		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			2.5		0
03/31/00			0.0		0
06/30/00	c***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(b)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	c***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(k)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Chrysene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Ethylbenzene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			2.9		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Indeno (1,2,3-cd)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Dibenzo(a,h)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

002 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Xylenes (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			25.8		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

GLOBAL REVCO LLC DMR RESULTS (1998 - 2003)

NPDES PERMIT NO. MA0003298

QL***** QL

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Flow Rate (gal/min)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Curve

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98			650		0
05/31/98			650		0
06/30/98			650		0
07/31/98			650		0
08/31/98			650		0
09/30/98			106		0
10/31/98			170		0
11/30/98			63		0
12/31/98			48		0
01/31/99	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: pH (S.U.)

Permit Limit: Report Only

Monitoring Frequency: Once/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98	E				
05/31/98	E				
06/30/98			7.52		0
07/31/98			7.19		0
08/31/98			7.11		0
09/30/98			7.45		0
10/31/98			6.6		0
11/30/98			6.67		0
12/31/98			8.80		0
01/31/99	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Suspended Solids (mg/L)

Permit Limit: Monthly Avg. 30 mg/L; Daily Max. 100 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported	Reported	Percent Violations	
		Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.
04/30/98		7.83	17.0	0	0
05/31/98		38.5	84	28	0
06/30/98		80	154	167	54
07/31/98		4.25	8.5	0	0
08/31/98		17	34.0	0	0
09/30/98		73.25	130	144	30
10/31/98		18.0	36.0	0	0
11/30/98		40.25	57.0	34	0
12/31/98		0.0	0.0	0	0
01/31/99	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Oil & Grease (mg/L)

Permit Limit: Daily Max. 15 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported	Reported	Percent Violations	
		Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.
04/30/98			0.3		0
05/31/98			5.5		0
06/30/98			7.0		0
07/31/98			5.0		0
08/31/98			5.0		0
09/30/98			0.0		0
10/31/98			0.0		0
11/30/98			0.0		0
12/31/98			0.0		0
01/31/99	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Flow (Mgal/month)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Estimate

Monitoring Period Ending	No Disch. Code	Reported	Reported	Percent Violations	
		Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.
04/30/98		819.0		0	
05/31/98		399.8		0	
06/30/98		936.0		0	
07/31/98		312.0		0	

08/31/98	79.5	0
09/30/98	83.2	0
10/31/98	55.8	0
11/30/98	40.62	0
12/31/98	17.28	0
01/31/99	8***	

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Methyl Tertiary-Butyl Ether (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			120		0
09/30/98			42		0
12/31/98			84		0
03/31/99	C				
05/31/99			0.0		0
06/30/99	C				
08/31/99			0.0		0
09/30/99	C				
10/31/99			0.0		0
12/31/99	C				
03/31/00	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Toluene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			14		0
09/30/98			9.9		0
12/31/98			9.5		0
03/31/99	C				
05/31/99			0.0		0
06/30/99	C				
08/31/99			0.0		0
09/30/99	C				
10/31/99			0.0		0
12/31/99	C				
03/31/00	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzene (ug/L)

Permit Limit: 500 ug/L

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			83		0
09/30/98			91		0
12/31/98			73		0
03/31/99	C				
05/31/99			0.0		0
06/30/99	C				
08/31/99			0.0		0
09/30/99	C				
10/31/99			0.0		0
12/31/99	C				
03/31/00	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(b)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99	C				
05/31/99			0.0		0
06/30/99	C				
08/31/99			0.0		0
09/30/99	C				
10/31/99			0.0		0
12/31/99	C				
03/31/00	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(k)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0

03/31/99	C		
05/31/99		0.0	0
06/30/99	C		
08/31/99		0.0	0
09/30/99	C		
10/31/99		0.0	0
12/31/99	C		
03/31/00	8***		

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99	C				
05/31/99			0.0		0
06/30/99	C				
08/31/99			0.0		0
09/30/99	C				
10/31/99			0.0		0
12/31/99	C				
03/31/00	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Chrysene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99	C				
05/31/99			0.0		0
06/30/99	C				
08/31/99			0.0		0
09/30/99	C				
10/31/99			0.0		0
12/31/99	C				
03/31/00	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe

leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Ethylbenzene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			50		0
09/30/98			5.4		0
12/31/98			28		0
03/31/99	C				
05/31/99			0.0		0
06/30/99	C				
08/31/99			0.0		0
09/30/99	C				
10/31/99			0.0		0
12/31/99	C				
03/31/00	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Indeno (1,2,3-cd)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99	C				
05/31/99			0.0		0
06/30/99	C				
08/31/99			0.0		0
09/30/99	C				
10/31/99			0.0		0
12/31/99	C				
03/31/00	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99	C				
05/31/99			0.0		0
06/30/99	C				
08/31/99			0.0		0
09/30/99	C				
10/31/99			0.0		0
12/31/99	C				
03/31/00	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Dibenzo(a,h)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99	C				
05/31/99			0.0		0
06/30/99	C				
08/31/99			0.0		0
09/30/99	C				
10/31/99			0.0		0
12/31/99	C				
03/31/00	8***				

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

003 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Xylenes (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			369		0
09/30/98			279		0

12/31/98		167	0
03/31/99	C		
05/31/99		0.0	0
06/30/99	C		
08/31/99		0.0	0
09/30/99	C		
10/31/99		0.0	0
12/31/99	C		
03/31/00	8***		

*** EPA was notified by the facility in January of 1999 that the discharge from Serial Outfall 003, which drains the property located at 222 Lee Burbank Highway, was eliminated. The facility reported that O/W Separator 3 was removed and the pipe leading to Outfall 003 disconnected as part of the redevelopment of the property for a hotel.

GLOBAL REVCO LLC DMR RESULTS (1998 - 2003)

NPDES PERMIT NO. MA0003298

QL***** QL

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Flow Rate (gal/min)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Curve

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98			650		0
05/31/98			650		0
06/30/98			650		0
07/31/98			650		0
08/31/98			650		0
09/30/98			174		0
10/31/98			116		0
11/30/98			43		0
12/31/98			32		0
01/31/99			100		0
02/28/99			120.5		0
03/31/99			34		0
04/30/99			102		0
05/31/99			19		0
06/30/99			56		0
07/31/99			76		0
08/31/99			102		0
09/30/99			273		0
10/31/99			56.0		0
11/30/99			86.0		0
12/31/99			102		0
01/31/00			71		0
02/29/00			57		0
03/31/00			136		0
04/30/00			38		0
05/31/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: pH (S.U.)

Permit Limit: Report Only

Monitoring Frequency: Once/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98	E				
05/31/98	E				
06/30/98			7.72		0
07/31/98			7.36		0
08/31/98			7.11		0
09/30/98			7.68		0
10/31/98			6.84		0
11/30/98			7.45		0

12/31/98		7.16	0
01/31/99		6.89	0
02/28/99		7.11	0
03/31/99		7.49	0
04/30/99	E		
05/31/99		7.49	0
06/30/99		6.0	0
07/31/99		7.18	0
09/30/99		7.13	0
10/31/99		7.23	0
11/30/99		7.44	0
12/31/99		7.64	0
01/31/00		7.29	0
02/29/00		6.93	0
03/31/00		7.10	0
04/30/00		7.51	0
05/31/00	C***		

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Suspended Solids (mg/L)

Permit Limit: Monthly Avg. 30 mg/L; Daily Max. 100 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported</u>	<u>Reported</u>	<u>Percent Violations</u>	
		<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98		19.66	41.0	0	0
05/31/98		30.0	60	0	0
06/30/98		13.8	15.5	0	0
07/31/98		101.25	180.0	238	80
08/31/98		17.0	26.0	0	0
09/30/98		95.5	191	218	91
10/31/98		11.25	22.5	0	0
11/30/98		8.75	17.5	0	0
12/31/98		0.0	0.0	0	0
01/31/99		133	133	343	33
02/28/99		73.75	98.5	146	0
03/31/99		175.75	289	486	189
04/30/99		11.0	11.0	0	0
05/31/99		22.25	26.0	0	0
06/30/99		280	280	833	180
07/31/99		63.65	78.0	112	0
08/31/99		0.0	0.0	0	0
09/30/99		214	233	613	133
10/31/99		172.5	192	475	92
11/30/99		0.0	0.0	0	0
12/31/99		88.0	102.0	193	2
01/31/00		18.25	28.0	0	0
02/29/00		69.0	106.0	130	6
03/31/00		55.33	89.5	84	0
04/30/00		28.0	28.0	0	0
05/31/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Oil & Grease (mg/L)

Permit Limit: Daily Max. 15 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
04/30/98			0.3		0
05/31/98			5.0		0
06/30/98			0.0		0
07/31/98			5.0		0
08/31/98			5.0		0
09/30/98			0.0		0
10/31/98			0.0		0
11/30/98			0.0		0
12/31/98			0.0		0
01/31/99			9.2		0
02/28/99			0.0		0
03/31/99			0.0		0
04/30/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
11/30/99			0.0		0
12/31/99			0.0		0
01/31/00			0.0		0
02/29/00			0.0		0
03/31/00			0.0		0
04/30/00			0.0		0
05/31/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Flow (Mgal/month)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Estimate

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				Monthly <u>Avg.</u>	Daily <u>Max.</u>
04/30/98		819.0		0	
05/31/98		399.8		0	
06/30/98		312.0		0	
07/31/98		312.0		0	
08/31/98		54.0		0	
09/30/98		57		0	
10/31/98		38.16		0	
11/30/98		27.66		0	
12/31/98		11.52		0	
01/31/99		84		0	
02/28/99		86.76		0	
03/31/99		17.82		0	
04/30/99		18.36		0	
05/31/99		9.1		0	
06/30/99		57.12		0	
07/31/99		21.96		0	

08/31/99	29.25	0
09/30/99	139.95	0
10/31/99	46.08	0
11/30/99	41.28	0
12/31/99	32.40	0
01/31/00	48.33	0
02/29/00	42.36	0
03/31/00	56.30	0
04/30/00	36.48	0
05/31/00	C***	

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Methyl Tertiary-Butyl Ether (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			54		0
09/30/98			0.0		0
12/31/98			150		0
03/31/99			230		0
05/31/99			0.0		0
06/30/99			2.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			3.5		0
03/31/00			3.3		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Toluene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			5.4		0
05/31/99			0.0		0
06/30/99			2.1		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			2.9		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzene (ug/L)

Permit Limit: 500 ug/L

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			1.6		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(b)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/01	C				
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

ATTACHMENT A

SUMMARY OF DISCHARGE MONITORING REPORT (DMR) RESULTS

(1998 TO 2003)

GLOBAL REVC0, LLC

NPDES PERMIT NO. MA0003298

NODI	490 NO DISCHARGE INDICATOR CODES DESCRIPTION
A	GENERAL PERMIT EXEMPTION
B	BELOW DETECT LIMIT/NO DETECT
C	NO DISCHARGE
D	LOST SAMPLE
E	ANALYSIS NOT CONDUCTED
F	INSUFFICIENT FLOW FOR SAMPLING
G	SAMPLING EQUIPMENT FAILURE
H	INVALID TEST
I	LAND APPLIED WASTE WATER
J	RECYCLED, WATER-CLOSED SYSTEM
K	FLOOD DISASTER
L	DMR RECEIVED BUT NOT ENTERED
M	NOT APPLIC DURING SLDGE MONITOR PERIOD
N	NOT TRACKED IN PCS FOR THIS PERIOD
Q	NOT QUANTIFIABLE
1	WRONG FLOW
2	OPERATIONS SHUTDOWN
3	LOW LEVEL PRODUCTION
4	LAGOON PROCESSING
5	FROZEN CONDITIONS
6	PRODUCTION BASED LIMITS DONT APPLY TO MP
7	DMR RECEIVED, PRODUCTION OR FLOW RELATED
8	OTHER
9	MONITORING IS CONDITIONAL/NOT REQ THIS MP

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(k)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported	Percent Violations	
			Daily Max.	Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported	Percent Violations	
			Daily Max.	Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Chrysene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Ethylbenzene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Indeno (1,2,3-cd)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported	Reported	Percent Violations	
		Monthly <u>Avg.</u>	Daily <u>Max.</u>	Monthly <u>Avg.</u>	Daily <u>Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported	Reported	Percent Violations	
		Monthly <u>Avg.</u>	Daily <u>Max.</u>	Monthly <u>Avg.</u>	Daily <u>Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Dibenzo(a,h)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avq.	Reported Daily Max.	Percent Violations	
				Monthly Avq.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

004 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Xylenes (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avq.	Reported Daily Max.	Percent Violations	
				Monthly Avq.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			1.4		0
05/31/99			0.0		0
06/30/99			1.4		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			1.5		0
06/30/00	C***				

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

GLOBAL REVCO LLC DMR RESULTS (1998 - 2003)

NPDES PERMIT NO. MA0003298

QL***** QL

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Flow Rate (gal/min)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Curve

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98			650		0
05/31/98			650		0
06/30/98			650		0
07/31/98			650		0
08/31/98			650		0
10/31/98			344		0
11/30/98			127		0
12/21/98			127		0
12/31/98			96		0
01/31/99			297		0
02/28/99			357.5		0
03/31/99			107		0
04/30/99			303		0
05/31/99			96		0
06/30/99			167		0
07/31/99			225		0
08/31/99			242		0
09/30/99			811		0
10/31/99			164		0
12/31/99			303		0
01/31/00			160		0
02/29/00			170		0
03/31/00			403		0
04/30/00			112		0
05/31/00	8***				
06/30/00	C				
07/31/00	C				
08/31/00	C				
09/30/00	C				
10/31/00	C				
11/30/00	C				
12/31/00	C				
01/31/01	C				
02/28/01	C				
03/31/01	C				
04/30/01	C				
05/31/01	C				
06/30/01	C				
07/31/01	C				
08/31/01	C				
10/31/01	C				
11/30/01	C				
09/30/01	C				
12/31/01	C				
01/31/02	C				
02/28/02	C				
03/31/02	C				
04/30/02	C				
05/31/02	C				
06/30/02	C				
07/31/02	C				
08/31/02	C				

09/30/02	C		
10/31/02	C		
11/30/02	C		
12/31/02	C		
01/31/03	C		
02/28/03	C		
12/31/02	C		
03/31/03	C		
04/30/03	C		
05/31/03	C		
06/30/03	C		
07/31/03	C		
08/31/03	C###		
09/30/03		350	0
10/31/03		350	0
11/30/03		350	0
12/31/03		350	0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: pH (S.U.)

Permit Limit: Report Only

Monitoring Frequency: Once/Month

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
04/30/98	E				
05/31/98	E				
06/30/98			7.76		0
07/31/98			7.05		0
08/31/98			7.48		0
10/31/98			7.24		0
11/30/98			7.66		0
12/21/98			7.66		0
12/31/98			7.44		0
01/31/99			6.97		0
02/28/99			7.36		0
03/31/99			7.44		0
04/30/99	E				
05/31/99			8.21		0
06/30/99			9.0		0
07/31/99			6.99		0
08/31/99			7.20		0
09/30/99			7.26		0
10/31/99			7.39		0
11/30/99			7.70		0
12/31/99			7.80		0
01/31/00			7.74		0
02/29/00			7.04		0
03/31/00			7.62		0
04/30/00			6.60		0
05/31/00	8***				
06/30/00	C				
07/31/00	C				
08/31/00	C				
09/30/00	C				

10/31/00	C		
11/30/00	C		
12/31/00	C		
01/31/01	C		
02/28/01	C		
03/31/01	C		
04/30/01	C		
05/31/01	C		
06/30/01	C		
07/31/01	C		
08/31/01	C		
10/31/01	C		
11/30/01	C		
09/30/01	C		
12/31/01	C		
01/31/02	C		
02/28/02	C		
03/31/02	C		
04/30/02	C		
05/31/02	C		
06/30/02	C		
08/31/02	C		
07/31/02	C		
09/30/02	C		
10/31/02	C		
11/30/02	C		
12/31/03	C		
01/31/03	C		
02/28/03	C		
12/31/02	C		
03/31/03	C		
04/30/03	C		
05/31/03	C		
06/30/03	C		
07/31/03	C		
08/31/03	C###		
09/30/03		8.41	0
10/31/03		8.4	0
11/30/03		8.34	0
12/31/03		8.41	0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Suspended Solids (mg/L)

Permit Limit: Monthly Avg. 30 mg/L; Daily Max. 100 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported</u>	<u>Reported</u>	<u>Percent Violations</u>	
		<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98		12.33	18.5	0	0
05/31/98		37.25	100.0	24	0
06/30/98		19.0	20.5	0	0
07/31/98		148.5	276	395	176
08/31/98		17.3	22.0	0	0
10/31/98		11.75	23.5	0	0
11/30/98		41.5	71.0	38	0

12/21/98		41.5	71.0	38	0
12/31/98		15.0	15.0	0	0
01/31/99		61.5	61.5	105	0
02/28/99		6.5	7.5	0	0
03/31/99		73.25	126	144	26
04/30/99		0.0	0.0	0	0
05/31/99		9.0	18.0	0	0
06/30/99		251	251	737	151
07/31/99		6.25	12.5	0	0
08/31/99		50.25	94.5	67	0
09/30/99		14.25	28.5	0	0
10/31/99		39.75	50.0	32	0
11/30/99		0.0	0.0	0	0
12/31/99		33.3	38.5	11	0
01/31/00		40.25	65.5	34	0
02/29/00		106.5	136.0	255	36
03/31/00		43.0	68.0	43	0
04/30/00		203	203	577	103
05/31/00	8***				
06/30/00	C				
07/31/00	C				
08/31/00	C				
09/30/00	C				
10/31/00	C				
11/30/00	C				
12/31/00	C				
01/31/01	C				
02/28/01	C				
03/31/01	C				
04/30/01	C				
05/31/01	C				
06/30/01	C				
07/31/01	C				
08/31/01	C				
10/31/01	C				
11/30/01	C				
09/30/01	C				
12/31/01	C				
01/31/02	C				
02/28/02	C				
03/31/02	C				
04/30/02	C				
05/31/02	C				
06/30/02	C				
08/31/02	C				
07/31/02	C				
09/30/02	C				
10/31/02	C				
11/30/02	C				
12/31/03	C				
01/31/03	C				
02/28/03	C				
12/31/02	C				
03/31/03	C				
04/30/03	C				
05/31/03	C				
06/30/03	C				
07/31/03	C				
08/31/03	C###				
09/30/03		144	144	380	44
10/31/03		0.0	0.0	0	0
11/30/03		0.0	0.0	0	0
12/31/03		6.0	12	0	0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Oil & Grease (mg/L)

Permit Limit: Daily Max. 15 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
04/30/98			0.0		0
05/31/98			6.57		0
06/30/98			0.0		0
07/31/98			0.0		0
08/31/98			0.0		0
10/31/98			0.0		0
11/30/98			0.0		0
12/21/98			0.0		0
12/31/98			0.0		0
01/31/99			6.3		0
02/28/99			6.2		0
03/31/99			0.0		0
04/30/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
11/30/99			0.0		0
12/31/99			0.0		0
01/31/00			0.0		0
02/29/00			0.0		0
03/31/00			0.0		0
04/30/00			0.0		0
05/31/00	8***				
06/30/00	C				
07/31/00	C				
08/31/00	C				
09/30/00	C				
10/31/00	C				
11/30/00	C				
12/31/00	C				
01/31/01	C				
02/28/01	C				
03/31/01	C				
04/30/01	C				
05/31/01	C				
06/30/01	C				
07/31/01	C				
08/31/01	C				
10/31/01	C				
11/30/01	C				
09/30/01	C				
12/31/01	C				
01/31/02	C				
02/28/02	C				
03/31/02	C				
04/30/02	C				
05/31/02	C				
06/30/02	C				
08/31/02	C				
07/31/02	C				
09/30/02	C				

10/31/02	C		
11/30/02	C		
12/31/03	C		
01/31/03	C		
02/28/03	C		
12/31/02	C		
03/31/03	C		
04/30/03	C		
05/31/03	C		
06/30/03	C		
07/31/03	C		
08/31/03	C###		
09/30/03		0.0	0
10/31/03		0.0	0
11/30/03		0.0	0
12/31/03		0.0	0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Flow (Mgal/month)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Estimate

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported	Reported	Percent Violations	
		Monthly <u>Avg.</u>	Daily <u>Max.</u>	Monthly <u>Avg.</u>	Daily <u>Max.</u>
04/30/98		819.0		0	
05/31/98		399.8		0	
06/30/98		480.0		0	
07/31/98		312.0		0	
08/31/98		160.5		0	
10/31/98		113.04		0	
11/30/98		81.48		0	
12/21/98		81.48		0	
12/31/98		34.56		0	
01/31/99		249.48		0	
02/28/99		257.4		0	
03/31/99		78.63		0	
04/30/99		54.54		0	
05/31/99		27.12		0	
06/30/99		170.34		0	
07/31/99		66.34		0	
08/31/99		86.79		0	
09/30/99		415.68		0	
10/31/99		136.80		0	
11/30/99		122.40		0	
12/31/99		73.28		0	
01/31/00		142.56		0	
02/29/00		126.30		0	
03/31/00		196.68		0	
04/30/00		107.52		0	
05/31/00	8***				
06/30/00	C				
07/31/00	C				
08/31/00	C				
09/30/00	C				
10/31/00	C				

11/30/00	C		
12/31/00	C		
01/31/01	C		
02/28/01	C		
03/31/01	C		
04/30/01	C		
05/31/01	C		
06/30/01	C		
07/31/01	C		
08/31/01	C		
10/31/01	C		
11/30/01	C		
09/30/01	C		
12/31/01	C		
01/31/02	C		
02/28/02	C		
03/31/02	C		
04/30/02	C		
05/31/02	C		
06/30/02	C		
08/31/02	C		
07/31/02	C		
09/30/02	C		
10/31/02	C		
11/30/02	C		
12/31/03	C		
01/31/03	C		
02/28/03	C		
12/31/02	C		
03/31/03	C		
04/30/03	C		
05/31/03	C		
06/30/03	C		
07/31/03	C		
08/31/03	C###		
09/30/03		0.34	0
10/31/03		1.16	0
11/30/03		0.03	0
12/31/03		1.51	0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Methyl Tertiary-Butyl Ether (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			4.9		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0

08/31/99		0.0	0
09/30/99		0.0	0
10/31/99		0.0	0
12/31/99		0.0	0
03/31/00		0.0	0
06/30/00	C***		
09/30/00	C		
12/31/00	C		
05/31/01	C		
06/30/01	C		
09/30/01	C		
12/31/01	C		
06/30/02	C		
09/30/02	C		
12/31/02	C		
03/31/03	C		
06/30/03	C###		
09/30/03		16.2	0
12/31/03		73	0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Toluene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				
09/30/00	C				
12/31/00	C				
05/31/01	C				
06/30/01	C				
09/30/01	C				
12/31/01	C				
06/30/02	C				
09/30/02	C				
12/31/02	C				
03/31/03	C				
06/30/03	C###				
09/30/03			0.0		0
12/31/03			0.0		0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water

conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzene (ug/L)

Permit Limit: 500 ug/L

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				
09/30/00	C				
12/31/00	C				
05/31/01	C				
06/30/01	C				
09/30/01	C				
12/31/01	C				
06/30/02	C				
09/30/02	C				
12/31/02	C				
03/31/03	C				
06/30/03	C###				
09/30/03			0.0		0
12/31/03			0.0		0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(b)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0

12/31/98		0.0	0
03/31/99		0.0	0
05/31/99		0.0	0
06/30/99		0.0	0
08/31/99		0.0	0
09/30/99		0.0	0
10/31/99		0.0	0
12/31/99		0.0	0
03/31/00		0.0	0
06/30/00	C***		
09/30/00	C		
12/31/00	C		
05/31/01	C		
06/30/01	C		
09/30/01	C		
12/31/01	C		
06/30/02	C		
09/30/02	C		
12/31/02	C		
03/31/03	C		
06/30/03	C###		
09/30/03		0.0	0
12/31/03		0.0	0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(k)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. Code	Reported Monthly Avg.	Reported	Percent Violations	
			Daily <u>Max.</u>	Monthly <u>Avg.</u>	Daily <u>Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				
09/30/00	C				
12/31/00	C				
05/31/01	C				
06/30/01	C				
09/30/01	C				
12/31/01	C				
06/30/02	C				
09/30/02	C				
12/31/02	C				
03/31/03	C				
06/30/03	C###				
09/30/03			0.0		0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported	Percent Violations	
			Daily Max.	Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				
09/30/00	C				
12/31/00	C				
05/31/01	C				
06/30/01	C				
09/30/01	C				
12/31/01	C				
06/30/02	C				
09/30/02	C				
12/31/02	C				
03/31/03	C				
06/30/03	C###				
09/30/03			0.0		0
12/31/03			0.0		0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Chrysene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				
09/30/00	C				
12/31/00	C				
05/31/01	C				
06/30/01	C				
09/30/01	C				
12/31/01	C				
06/30/02	C				
09/30/02	C				
12/31/02	C				
03/31/03	C				
06/30/03	C###				
09/30/03			0.0		0
12/31/03			0.0		0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Ethylbenzene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				

09/30/00	C		
12/31/00	C		
05/31/01	C		
06/30/01	C		
09/30/01	C		
12/31/01	C		
06/30/02	C		
09/30/02	C		
12/31/02	C		
03/31/03	C		
06/30/03	C###		
09/30/03		0.0	0
12/31/03		0.0	0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Indeno (1,2,3-cd)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				
09/30/00	C				
12/31/00	C				
05/31/01	C				
06/30/01	C				
09/30/01	C				
12/31/01	C				
06/30/02	C				
09/30/02	C				
12/31/02	C				
03/31/03	C				
06/30/03	C###				
09/30/03			0.0	0	0
12/31/03			0.0	0	0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005

was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avq.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avq.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				
09/30/00	C				
12/31/00	C				
05/31/01	C				
06/30/01	C				
09/30/01	C				
12/31/01	C				
06/30/02	C				
09/30/02	C				
12/31/02	C				
03/31/03	C				
06/30/03	C###				
09/30/03			0.0		0
12/31/03			0.0		0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Dibenzo(a,h)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avq.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avq.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0

10/31/99		0.0	0
12/31/99		0.0	0
03/31/00		0.0	0
06/30/00	C***		
09/30/00	C		
12/31/00	C		
05/31/01	C		
06/30/01	C		
09/30/01	C		
12/31/01	C		
06/30/02	C		
09/30/02	C		
12/31/02	C		
03/31/03	C		
06/30/03	C###		
09/30/03		0.0	0
12/31/03		0.0	0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

005 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Xylenes (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			1.1		0
05/31/99			0.0		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	C***				
09/30/00	C				
12/31/00	C				
05/31/01	C				
06/30/01	C				
09/30/01	C				
12/31/01	C				
06/30/02	C				
09/30/02	C				
12/31/02	C				
03/31/03	C				
06/30/03	C###				
09/30/03			0.0		0
12/31/03			6.15		0

*** EPA was notified by the facility in April of 2000 that the discharge from this Outfall was eliminated as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property. As a result of these

improvements, the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

GLOBAL REVCO LLC DMR RESULTS (1998 - 2003)

NPDES PERMIT NO. MA0003298

QL***** QL

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Flow Rate (gal/min)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Curve

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations Monthly Avg.	Daily Max.
04/30/98			650		0
05/31/98			650		0
06/30/98			650		0
07/31/98			650		0
08/31/98			650		0
09/30/98			91		0
10/31/98			97		0
11/30/98			36		0
12/31/98			27		0
01/31/99			83		0
02/28/99			100.0		0
03/31/99			28		0
04/30/99			85		0
05/31/99			20		0
06/30/99			47		0
07/31/99			63		0
08/31/99			85		0
09/30/99			228		0
10/31/99			46.0		0
11/30/99			72.00		0
12/31/99			85		0
01/31/00			85.0		0
02/29/00			52		0
03/31/00			113.0		0
04/30/00	***		760		0
05/31/00			760		0
06/30/00			137.1		0
07/31/00			217		0
08/31/00			134		0
09/30/00			135		0
10/31/00			147		0
11/30/00			153		0
12/31/00			134		0
01/31/01	C				
02/28/01	C				
03/31/01			176.4		0
04/30/01	C				
05/31/01			185		0
06/30/01			114		0
07/31/01			100.4		0
08/31/01			158		0
09/30/01			166		0
10/31/01	C				
11/30/01	C				
12/31/01			130		0
01/31/02			100		0
02/28/02			107.1		0
03/31/02			93.1		0
04/30/02			90.8		0
05/31/02			82.5		0
06/30/02			112.2		0
07/31/02	E				

08/31/02	C		
09/30/02		97.4	0
10/31/02		98.1	0
11/30/02		120.3	0
12/31/02		106.6	0
01/31/03		760	0
02/28/03	C		
03/31/03		760	0
04/30/03		760	0
05/31/03		760	0
06/30/03		760	0
07/31/03		760	0
08/31/03		760	0
09/30/03	C###		
10/31/03	C		
11/30/03	C		
12/31/03	C		

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: pH (S.U.)

Permit Limit: Report Only

Monitoring Frequency: Once/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avg.</u>	Reported Daily <u>Max.</u>	Percent Violations	
				<u>Monthly Avg.</u>	<u>Daily Max</u>
04/30/98	E				
05/31/98	E				
06/30/98			7.29		0
07/31/98			7.01		0
08/31/98			6.64		0
09/30/98			7.53		0
10/31/98			6.66		0
11/30/98			7.45		0
12/31/98			7.2		0
01/31/99			6.97		0
02/28/99			7.36		0
03/31/99			7.44		0
04/30/99	E				
05/31/99			7.47		0
06/30/99			7.4		0
07/31/99			7.09		0
08/31/99			7.17		0
09/30/99			7.23		0
10/31/99			7.45		0
11/30/99			7.77		0
12/31/99			7.80		0
01/31/00			7.60		0
02/29/00			6.91		0
03/31/00			7.01		0
04/30/00			7.32		0
05/31/00			7.53		0
06/30/00	***		7.45		0
07/31/00			7.45		0
08/31/00			7.58		0
09/30/00			7.34		0
10/31/00			7.72		0

11/30/00		8.25	0
12/31/00		7.01	0
01/31/01	C		
02/28/01	C		
03/31/01		8.15	0
04/30/01	C		
05/31/01		7.54	0
06/30/01		7.5	0
07/31/01		7.5	0
08/31/01		7.84	0
09/30/01		8.17	0
10/31/01	C		
11/30/01	C		
12/31/01		7.90	0
01/31/02		7.94	0
02/28/02		7.74	0
03/31/02		7.43	0
04/30/02		7.94	0
05/31/02		7.89	0
06/30/02		7.89	0
07/31/02	E		
08/31/02	C		
09/30/02		7.44	0
10/31/02		8.03	0
11/30/02		8.43	0
12/31/02		8.31	0
01/31/03		8.14	0
02/28/03	C		
03/31/03		8.31	0
04/30/03		8.62	0
05/31/03		8.54	0
06/30/03		8.3	0
07/31/03		7.68	0
08/31/03		8.57	0
09/30/03	C		
10/31/03	C		
11/30/03	C		
12/31/03	C		

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Suspended Solids (mg/L)

Permit Limit: Monthly Avg. 30 mg/L; Daily Max. 100 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max</u>
04/30/98		16.25	24.0	0	0
05/31/98		13.25	33	0	0
06/30/98		14.25	14.5	0	0
07/31/98		632	976	2006	876
08/31/98		31.0	35.0	3.3	0
09/30/98		85	170	183	70
10/31/98		9.5	10.0	0	0
11/30/98		0.0	0.0	0	0
12/31/98		54.0	54.0	80	0

01/31/99		148	148	393	48
02/28/99		37.25	63.0	24	0
03/31/99		75.25	93.0	151	0
04/30/99		32.5	32.5	8.3	0
05/31/99		20.25	26.5	0	0
06/30/99		173	173	48	73
07/31/99		36	50	20	0
08/31/99		0.0	0.0	0	0
09/30/99		80	160	167	60
10/31/99		28.0	56.0	0	0
11/30/99		0.0	0.0	0	0
12/31/99		24.5	28.0	0	0
01/31/00		14.45	20.0	0	0
02/29/00		115.0	154.0	283	54
03/31/00		61.0	86.0	103	0
04/30/00		167.2	278.0	457	178
05/31/00		32.43	52.5	8.1	0
06/30/00		16.75	31.5	0	0
07/31/00		14.2	14.4	0	0
08/31/00		0.0	0.0	0	0
09/30/00		14.6	16.8	0	0
10/31/00		20.1	21.5	0	0
11/30/00		56.7	120	0	20
12/31/00		11.4	14.4	0	0
01/31/01	C				
02/28/01	C				
03/31/01		26.2	66.0	0	0
04/30/01	C				
05/31/01		5.5	5.5	0	0
06/30/01		47.7	108	59	8
07/31/01		0.0	0.0	0	0
08/31/01		30.6	46	2	0
10/31/01	C				
11/30/01	C				
09/30/01	E				
12/31/01		15.8	22.4	0	0
01/31/02		8.6	17.2	0	0
02/28/02		53.2	92.0	77	0
03/31/02		4.5	9.0	0	0
04/30/02		10.7	18.8	0	0
05/31/02		13.2	23.0	0	0
06/30/02		7.3	14.0	0	0
08/31/02	C				
07/31/02	E				
09/30/02		14.8	14.8	0	0
10/31/02		34.8	59.6	16	0
11/30/02		12.1	28.8	0	0
12/30/02		19.6	28.4	0	0
01/31/03		0.0	0.0	0	0
02/28/03	C				
12/31/02		19.6	28.4	0	0
03/31/03		3.4	6.8	0	0
04/30/03		8.5	22.4	0	0
05/31/03		7.6	22.8	0	0
06/30/03		9	14.4	0	0
07/31/03		0.0	0.0	0	0
08/31/03		16.2	17.6	0	0
09/30/03	C				
10/31/03	C				
11/30/03	C				
12/31/03	C				

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005

was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Oil & Grease (mg/L)

Permit Limit: Daily Max. 15 mg/L

Monitoring Frequency: Twice/Month

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations Monthly Avg.</u>	<u>Daily Max.</u>
04/30/98			0.0		0
05/31/98			5.8		0
06/30/98			0.0		0
07/31/98			0.0		0
08/31/98			0.0		0
09/30/98			0.0		0
10/31/98			0.0		0
11/30/98			0.0		0
12/31/98			0.0		0
01/31/99			6.6		0
02/28/99			22.7		0
03/31/99			0.0		0
04/30/99			0.0		0
05/31/99			0.0		0
06/30/99			6.53		0
07/31/99			0.0		0
08/31/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
11/30/99			0.0		0
12/31/99			0.0		0
01/31/00			0.0		0
02/29/00			0.0		0
03/31/00			0.0		0
04/30/00			0.0		0
05/31/00			0.0		0
06/30/00	***		0.0		0
07/31/00			0.0		0
08/31/00			0.0		0
09/30/00			0.0		0
10/31/00			0.0		0
11/30/00			26.9		0
12/31/00			0.0		0
01/31/01	C				
02/28/01	C				
03/31/01			0.0		0
04/30/01	C				
05/31/01			0.0		0
06/30/01			0.0		0
07/31/01			0.0		0
08/31/01			0.0		0
10/31/01	C				
11/30/01	C				
09/30/01			0.0		0
12/31/01			0.0		0
01/31/02			0.0		0
02/28/02			0.0		0
03/31/02			0.0		0
04/30/02			0.0		0
05/31/02			0.0		0
06/30/02			0.0		0
08/31/02	*				
07/31/02	C				
09/30/02	E				
09/30/02			0.0		0
10/31/02			0.0		0
11/30/02			0.0		0

12/30/02		12.1	0
01/31/03		0.0	0
02/28/03	C		
12/31/02		12.1	0
03/31/03		0.0	0
04/30/03		0.0	0
05/31/03		0.0	0
06/30/03		0.0	0
07/31/03		0.0	0
08/31/03		0.0	0
09/30/03	C###		
10/31/03	C		
11/30/03	C		
12/31/03	C		

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Flow (Mgal/month)

Permit Limit: Report Only

Monitoring Frequency: Once/Rain Event

Sample Type: Estimate

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported	Reported	Percent Violations	
		Monthly <u>Avg.</u>	Daily <u>Max.</u>	Monthly <u>Avg.</u>	Daily <u>Max.</u>
04/30/98		819.0		0	
05/31/98		399.8		0	
06/30/98		468.0		0	
07/31/98		624.0		0	
08/31/98		45.0		0	
09/30/98		47.52		0	
10/31/98		63.96		0	
11/30/98		22.92		0	
12/31/98		9.72		0	
01/31/99		69.72		0	
02/28/99		72.0		0	
03/31/99		14.76		0	
04/30/99		15.3		0	
05/31/99		7.7		0	
06/30/99		47.94		0	
07/31/99		18.36		0	
08/31/99		24.27		0	
09/30/99		116.88		0	
10/31/99		38.40		0	
11/30/99		34.56		0	
12/31/99		20.48		0	
01/31/00		40.23		0	
02/29/00		36.52		0	
03/31/00		55.34		0	
04/30/00		36.05		0	
05/31/00		86.20		0	
06/30/00		124.0		0	
07/31/00		146.3		0	
08/31/00		106.2		0	
09/30/00		289.3		0	
10/31/00		342.2		0	
11/30/00		378		0	
12/31/00		306.9		0	

01/31/01	C		
02/28/01	C		
03/31/01		288.9	0
04/30/01	C		
05/31/01		72.3	0
06/30/01		377.8	0
07/31/01		319.3	0
08/31/01		530.9	0
10/31/01	C		
11/30/01	C		
09/30/01		398.6	0
12/31/01		412.8	0
01/31/02		530.9	0
02/28/02		484.7	0
03/31/02		435.7	0
04/30/02		449.2	0
05/31/02		426.4	0
06/30/02		403.2	0
08/31/02	C		
07/31/02	E		
09/30/02		549.5	0
10/31/02		313.7	0
11/30/02		531.5	0
12/30/02		461.0	0
01/31/03		0.39	0
02/28/03	C		
12/31/02		461.0	0
03/31/03		0.67	0
04/30/03		3.22	0
05/31/03		1.19	0
06/30/03		1.72	0
07/31/03		0.76	0
08/31/03		0.79	0
09/30/03	C		
10/31/03	C		
11/30/03	C		
12/31/03	C		

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Methyl Tertiary-Butyl Ether (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			21		0
09/30/98			2.7		0
12/31/98			0.0		0
03/31/99			4.8		0
06/30/99			0.0		0
08/31/99			0.0		0
09/30/99			6.7		0
10/31/99			0.0		0
12/31/99			12		0
03/31/00			14		0

06/30/00	***		9.3		0
09/30/00			68		0
12/31/00			19		0
03/31/01			6.9		0
06/30/01	C				
09/30/01			13		0
12/31/01			6.45		0
03/31/02			0.0		0
06/30/02			26.3		0
09/30/02	C				
12/31/02			7.03		0
03/31/03	E				
06/30/03			58.4		0
09/30/03	C###				
12/31/03	C				

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Toluene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avq.	Reported Daily Max.	Percent Violations	
				Monthly Avq.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			5.3		0
06/30/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			49.0		0
06/30/00	***		1.5		0
09/30/00			41		0
12/31/00			0.0		0
03/31/01			6.8		0
06/30/01	C				
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02	C				
12/31/02			0.0		0
03/31/03	E				
06/30/03					
09/30/03	C###				
12/31/03	C				

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005

was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzene (ug/L)

Permit Limit: 500 ug/L

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			1.4		0
06/30/00	***		0.0		0
09/30/00			1.2		0
12/31/00			0.0		0
03/31/01			1.4		0
06/30/01	C				
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02	C				
12/31/02			0.0		0
03/31/03	E				
06/30/03			0.0		0
09/30/03	C###				
12/31/03	C				

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(b)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	<u>No Disch. Code</u>	<u>Reported Monthly Avg.</u>	<u>Reported Daily Max.</u>	<u>Percent Violations</u>	
				<u>Monthly Avg.</u>	<u>Daily Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	***		0.0		0

09/30/00		0.0	0
12/31/00		0.0	0
03/31/01		0.0	0
06/30/01	C		
09/30/01		0.0	0
12/31/01		0.0	0
03/31/02		0.0	0
06/30/02		0.0	0
09/30/02	C		
12/31/02		0.0	0
03/31/03	E		
06/30/03		0.0	0
09/30/03	C###		
12/31/03	C		

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(k)fluoranthene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported	Reported	Percent Violations	
		Monthly <u>Avq.</u>	Daily <u>Max.</u>	Monthly <u>Avq.</u>	Daily <u>Max.</u>
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	***		0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01	C				
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02	C				
12/31/02			0.0		0
03/31/03	E				
06/30/03			0.0		0
09/30/03	C###				
12/31/03	C				

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	***		0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01	C				
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02	C				
12/31/02			0.0		0
03/31/03	E				
06/30/03			0.0		0
09/30/03	C###				
12/31/03	C				

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Chrysene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	***		0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0

06/30/01	C		
09/30/01		0.0	0
12/31/01		0.0	0
03/31/02		0.0	0
06/30/02		0.0	0
09/30/02	C		
12/31/02		0.0	0
03/31/03	E		
06/30/03		0.0	0
09/30/03	C###		
12/31/03	C		

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Ethylbenzene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

<u>Monitoring Period Ending</u>	No Disch. <u>Code</u>	Reported Monthly <u>Avq.</u>	Reported		Percent Violations	
			Daily <u>Max.</u>	Daily <u>Max.</u>	Monthly <u>Avq.</u>	Daily <u>Max.</u>
06/30/98			0.0			0
09/30/98			0.0			0
12/31/98			0.0			0
03/31/99			0.0			0
06/30/99			0.0			0
09/30/99			0.0			0
10/31/99			0.0			0
12/31/99			0.0			0
03/31/00			12.0			0
06/30/00	***		0.0			0
09/30/00			10			0
12/31/00			0.0			0
03/31/01			0.0			0
06/30/01	C					
09/30/01			0.0			0
12/31/01			0.0			0
03/31/02			0.0			0
06/30/02			0.0			0
09/30/02	C					
12/31/02			0.0			0
03/31/03	E					
06/30/03			0.0	0		
09/30/03	C###					
12/31/03	C					

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Indeno (1,2,3-cd)pyrene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	***		0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01	C				
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02	C				
12/31/02			0.0		0
03/31/03	E				
06/30/03			0.0		0
09/30/03	C###				
12/31/03	C				

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Benzo(a)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	***		0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01	C				

09/30/01		0.0	0
12/31/01		0.0	0
03/31/02		0.0	0
06/30/02		0.0	0
09/30/02	C		
12/31/02		0.0	0
03/31/03	E		
06/30/03		0.0	0
09/30/03	C###		
12/31/03	C		

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Dibenzo(a,h)anthracene (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			0.0		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			0.0		0
06/30/99			0.0		0
09/30/99			0.0		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			0.0		0
06/30/00	***		0.0		0
09/30/00			0.0		0
12/31/00			0.0		0
03/31/01			0.0		0
06/30/01	C				
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02	C				
12/31/02			0.0		0
03/31/03	E				
06/30/03			0.0		0
09/30/03	C###				
12/31/03	C				

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

006 - OIL/WATER SEPARATOR

Monitoring Parameter: Total Xylenes (ug/L)

Permit Limit: Report Only

Monitoring Frequency: Quarterly

Sample Type: Grab

Monitoring Period Ending	No Disch. Code	Reported Monthly Avg.	Reported Daily Max.	Percent Violations	
				Monthly Avg.	Daily Max.
06/30/98			12.5		0
09/30/98			0.0		0
12/31/98			0.0		0
03/31/99			5.5		0
06/30/99			0.0		0
09/30/99			3.3		0
10/31/99			0.0		0
12/31/99			0.0		0
03/31/00			124		0
06/30/00	***		2.0		0
09/30/00			65		0
12/31/00			0.0		0
03/31/01			3.2		0
06/30/01	C				
09/30/01			0.0		0
12/31/01			0.0		0
03/31/02			0.0		0
06/30/02			0.0		0
09/30/02	C				
12/31/02			0.0		0
03/31/03	E				
06/30/03			0.0		0
09/30/03	C###				
12/31/03	C				

*** EPA was notified by the facility in April of 2000 that as a result of changes and improvements made to the storm water conveyance system on the tank farm side of the property the discharge from Serial Outfall Nos 002, 004, 005, and 006 were consolidated into one discharge from Outfall 006.

The redevelopment of a portion of the tank farm property (201 Lee Burbank Highway) eliminated the discharge locations for Outfalls 004 and 006. As a result, Outfall 005 was re-activated in September of 2003 and became the sole discharge point for storm water runoff from the tank farm.

ATTACHMENT B

SUMMARY OF DISCHARGE MONITORING REPORT (DMR) RESULTS

(1998 TO 2003)

FOR POLYNUCLEAR AROMATIC COMPOUNDS

GLOBAL REVCO

NPDES PERMIT NO. MA0003298

Global Revco LLC Terminal (Permit No. MA0003298) 2001-2003 Quarterly Storm Water Monitoring Results for PAHs ⁽¹⁾ / Outfall 001

PAH Compounds	1st Quarter 2001 (ug/L)	2nd Quarter 2001 (ug/L)	3rd Quarter 2001 (ug/L)	4th Quarter 2001 (ug/L)	1st Quarter 2002 (ug/L)	2nd Quarter 2002 (ug/L)	3rd Quarter 2002 (ug/L)	4th Quarter 2002 (ug/L)	1st Quarter 2003 (ug/L)	2nd Quarter 2003 (ug/L)	3rd Quarter 2003 (ug/L)	4th Quarter 2003 (ug/L)
Benzo(a)anthracene	<5.1	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene	<5.1	<5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(b)fluoranthene	<5.1	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	<5.1	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chrysene	<5.1	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibenzo(a,h)anthracene	<5.1	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-cd)pyrene	<5.1	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

(1) PAHs or Polynuclear Aromatic Hydrocarbons

Global Revco LLC Terminal (Permit No. MA0003298) 2001-2003 Quarterly Storm Water Monitoring Results for PAHs ⁽¹⁾ / Outfalls 005 and 006 ⁽²⁾

PAH Compounds	1 st Quarter 2001 (ug/L)	2 nd Quarter 2001 (ug/L)	3 rd Quarter 2001 (ug/L)	4 th Quarter 2001 (ug/L)	1 st Quarter 2002 (ug/L)	2 nd Quarter 2002 (ug/L)	3 rd Quarter 2002 (ug/L)	4 th Quarter 2002 (ug/L)	1 st Quarter 2003 (ug/L)	2 nd Quarter 2003 (ug/L)	3 rd Quarter 2003 (ug/L)	4 th Quarter 2003 (ug/L)
Benzo(a)anthracene	<5.1	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5
Benzo(a)pyrene	<5.1	<5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NA	<0.2	<0.2	<0.2
Benzo(b)fluoranthene	<5.1	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5
Benzo(k)fluoranthene	<5.1	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0
Chrysene	<5.1	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5
Dibenzo(a,h)anthracene	<5.1	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5
Indeno(1,2,3-cd)pyrene	<5.1	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5

(1) PAHs or Polynuclear Aromatic Hydrocarbons

(2) Quarterly results are from samples taken from Outfall 006 with the exception of 4th Quarter, 2003 which was taken from Outfall 005.

Outfall sampling location changed do to sale of property on which Outfall 006 was located.

NA - No results available for this compound for this sampling event.

ATTACHMENT C

SUMMARY OF DISCHARGE MONITORING REPORT (DMR) RESULTS

(2001 TO 2003)

FOR VOLATILE ORGANIC COMPOUNDS

GLOBAL REVCO

NPDES PERMIT NO. MA0003298

Global Revco LLC Terminal (Permit No. MA0003298) 2001-2003 Quarterly Storm Water Monitoring Results for VOCs ⁽¹⁾ / Outfall 001

VOC Compounds	1 st Quarter 2001 (ug/L)	2 nd Quarter 2001 (ug/L)	3 rd Quarter 2001 (ug/L)	4 th Quarter 2001 (ug/L)	1 st Quarter 2002 (ug/L)	2 nd Quarter 2002 (ug/L)	3 rd Quarter 2002 (ug/L)	4 th Quarter 2002 (ug/L)	1 st Quarter 2003 (ug/L)	2 nd Quarter 2003 (ug/L)	3 rd Quarter 2003 (ug/L)	4 th Quarter 2003 (ug/L)
Benzene	<0.7	<2.0	<0.7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	<1.0	<2.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	<1.0	<2.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total Xylenes	<2.0	<4.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl tertiary-butyl ether	52	170	1.2	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
BTEX ⁽²⁾	<2.0	<4.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

(1) VOCs or Volatile Organic Compounds

(2) BTEX - summation of results for benzene, toluene, ethylbenzene, and total xylenes (non-detects are not included)

Global Revco LLC Terminal (Permit No. MA0003298) 2001-2003 Quarterly Storm Water Monitoring Results for VOCs ⁽¹⁾ / Outfalls 005 and 006 ⁽²⁾

VOC Compounds	1 st Quarter 2001 (ug/L)	2 nd Quarter 2001 (ug/L)	3 rd Quarter 2001 (ug/L)	4 th Quarter 2001 (ug/L)	1 st Quarter 2002 (ug/L)	2 nd Quarter 2002 (ug/L)	3 rd Quarter 2002 (ug/L)	4 th Quarter 2002 (ug/L)	1 st Quarter 2003 (ug/L)	2 nd Quarter 2003 (ug/L)	3 rd Quarter 2003 (ug/L)	4 th Quarter 2003 (ug/L)
Benzene	1.4	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0
Toluene	6.8	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0
Ethylbenzene	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0
Total Xylenes	3.2	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	6.2
Methyl tertiary-butyl ether	6.9	73	13	6.5	<5.0	26.3	<5.0	7	NA	58.4	16.2	73.2
BTEX ⁽³⁾	11.4	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	<5.0	<5.0	6.2

(1) VOCs or Volatile Organic Compounds

(2) Quarterly results are from samples taken from Outfall 006 with the exception of 4th Quarter, 2003 which was taken from Outfall 005.

Outfall sampling location changed do to sale of property on which Outfall 006 was located.

(3) BTEX - summation of results for benzene, toluene, ethylbenzene, and total xylenes (non-detects are not included)

NA - No results available for this compound for this sampling event.

ATTACHMENT D
ENDANGERED SPECIES LIST



Protected Resources



NOAA Fisheries

National Marine Fisheries Service

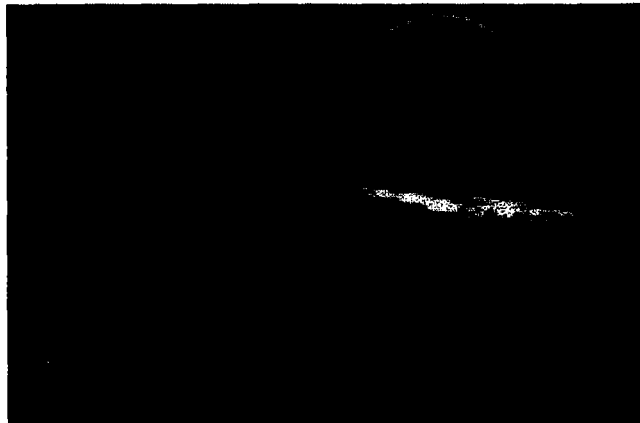
"conserving protected marine resources and maintaining marine biodiversity"



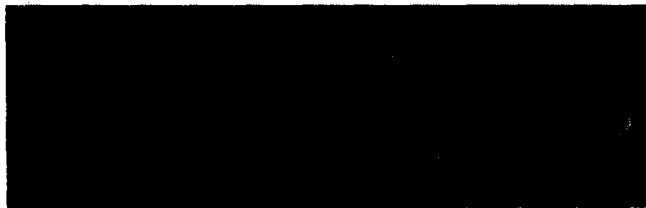
Home	Endangered Species	Marine Mammal Conservation	Permit Information	Coral Reefs and Biodiversity	International Activities	Reports and Publications
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Species Listed under the Endangered Species Act of 1973

The authority to list species as threatened or endangered is shared by the National Marine Fisheries Service (NMFS), which is responsible for listing most marine species, and the Fish and Wildlife Service (FWS), which administers the listing of all other plants and animals. There are two classifications under which a species may be listed.



- Species determined to be in imminent danger of extinction throughout all of a significant portion of their range are listed as "endangered."
- Species determined likely to become endangered in the foreseeable future are listed as "threatened."



Further, distinct populations may be listed even if a species is abundant in other portions of its range. The criteria for endangerment must be based solely on biological evidence and the best scientific and/or commercial data available. Moreover, additions or deletions may be proposed by anyone who presents adequate evidence of the endangered status of a

species.

Domestic Endangered Species			
Atlantic salmon	Green sea turtle	Leatherback sea turtle	Sperm whale
Blue whale	Hawaiian monk seal	Northern right whale	Steelhead
Bowhead whale	Hawksbill sea turtle	Olive ridley sea turtle	White abalone
Caribbean monk seal	Humpback whale	Sei whale	Smalltooth sawfish
Fin whale	Kemp's ridley sea turtle	Shortnose sturgeon	

Domestic Threatened Species			
Chinook salmon	Green sea turtle	Johnson's sea grass	Sockeye salmon

Coho salmon	Guadalupe fur seal	Loggerhead sea turtle	Steelhead
Chum salmon	Gulf sturgeon	Olive ridley sea turtle	Steller sea lion

<i>Domestic Species Proposed for Listing</i>

<i>International Species Listed as Endangered or Threatened Under the ESA</i>			
Chinese River dolphin	Gulf of California harbor porpoise (vaquita)	Mediterranean monk seal	Southern right whale
Gray whale - Western North Pacific population	Indus River dolphin	Ringed seal (Siamma seal)	Totoaba

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NOAA Fisheries, Office of Protected Resources, 1315 East West Highway, Silver Spring, MD 20910
 Fax:301-713-0376 Phone:301-713-2332

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Listings under the U.S. Endangered Species Act

The U.S. Endangered Species Act (U.S. ESA) is the primary legislation that affords federal legal protections to threatened and endangered species in the United States, and is administered by the U.S. Fish and Wildlife Service (USFWS) (<http://endangered.fws.gov/>) and U.S. National Marine Fisheries Service (NMFS) (http://www.nmfs.noaa.gov/prot_res/overview/es.html). As defined by the Act, endangered refers to species that are "in danger of extinction within the foreseeable future throughout all or a significant portion of its range," while threatened refers to "those animals and plants likely to become endangered within the foreseeable future throughout all or a significant portion of their ranges." Plant species and varieties (including fungi and lichens), animal species and subspecies, and vertebrate animal populations are eligible for listing under the Act.

Status under the U.S. Endangered Species Act provided by *NatureServe Explorer* is based on formal notices published by USFWS or NMFS in the Federal Register. The date shown alongside the status (in parentheses) refers to the formal Federal Register publication date regarding the status designation. Dates appear only for taxa and populations that are specifically named in a Federal Register Notice of Review Table or in the section of a Federal Register Proposed or Final Rule that proposes or declares an amendment to 50 Code of Federal Regulations Part 17 Section 11 or 12 (i.e., changes to the Lists of Endangered and Threatened Wildlife and Plants).

Specifically, dates represent:

For listed endangered and threatened taxa and populations: the date of publication of the Federal Register "Final Rule" for the taxon or population.

For proposed taxa and populations: the date of publication of the most recent Federal Register "Proposed Rule" for the taxon or population.

For candidate taxa and populations: the date of publication of the most recent "Notice of Reclassification" or "Notice of Review" in which the candidate appears.

NatureServe staff update the central databases with changes in status due to proposals and determinations to add taxa to the Lists of Endangered and Threatened Wildlife and Plants within two weeks of publication in the Federal Register. Addition and removal of candidates in Notices of Review or Notices of Reclassification are entered within four weeks of their publication. *NatureServe Explorer* is updated periodically from the NatureServe Central Databases and reflects the federal status current at the time of update.

ESA Status Definitions in *NatureServe Explorer*

NatureServe Explorer generally uses the same scientific name as USFWS for species with status under the Endangered Species Act. For listed population segments of vertebrate animals, *NatureServe Explorer* information can typically be found in the species record associated with the subspecies or population. Where names used by the USFWS differ from those used by NatureServe, *NatureServe Explorer* records are cross-referenced and can be

found using either name. The following table provides abbreviations and definitions for various listing statuses under the U.S. Endangered Species Act.

U.S. Endangered Species Act Abbreviations	
NatureServe Explorer Abbreviation	Status Under the U.S. Endangered Species Act
LE	Listed endangered
LT	Listed threatened
PE	Proposed endangered
PT	Proposed threatened
C	Candidate
PDL	Proposed for delisting
SAE or SAT	Listed endangered or threatened because of similarity of appearance
PSAE or PSAT	Proposed endangered or threatened because of similarity of appearance
XE	Essential experimental population
XN	Nonessential experimental population
Null value	Usually indicates that the taxon does not have any federal status. However, because of potential lag time between publication in the Federal Register and entry in the central databases and refresh of this website, some taxa may have a status which does not yet appear.

Status Due to Taxonomic Relationship ("Implied USESA Status")

In some cases species or infraspecific taxa may not be named in a federal register notice, but may still have federal protection due to their taxonomic relationship with formally listed taxa. Section 17.11(g) of the Endangered Species Act states, "the listing of a particular taxon includes all lower taxonomic units." Also, if an infraspecific taxon or population has federal status, then by default, some part of the species has federal protection. NatureServe Explorer notes where federal protection of a taxon is "implied" through such taxonomic relationships. Where federal status is implied due to a taxonomic relationship alone, the status abbreviation appears with a flag (†) and no date of listing is given.

Status of Geopolitically or Administratively Defined Populations

Distinct population segments of vertebrate animals may be listed as threatened or endangered under the Endangered Species Act. Listed populations may be defined by geopolitical boundaries (i.e., the status applies to the species or subspecies only within those boundaries, even though the taxon may range more broadly), or populations may be defined administratively (e.g., experimental populations). Because such populations do not typically have individual records in NatureServe Explorer, the U.S. ESA status is recorded for the species or subspecies to which that

population belongs. In these cases, the status abbreviation appears with a flag (†), after the abbreviation "PS" for "partial status" - indicating that the status applies only to a portion of the species' range.

Implied ESA Status Notations (Status Due to Taxonomic Relationship)		
Example	Explanation	Definition
<i>value,value</i>	Combination values	The taxon has one status currently, but a more recent proposal has been made to change that status with no final action yet published. For example, "LE, PDL" indicates that the species is currently listed as endangered, but has been proposed for delisting. Or, the taxon has two different statuses throughout its range. More specifically, it has a status in one portion of its range and a different status in the remainder of its range.
(<i>Value</i>)	Flagged Values	The taxon itself is not named in the Federal Register as having U.S. ESA status; however, it does have U.S. ESA status as a result of its taxonomic relationship to a named entity. For example, if a species is federally listed as endangered, then by default, all of its recognized subspecies also have endangered status. The subspecies in this example would have the value "LE (†)" under U.S. ESA Status. Likewise, if all of a species' infraspecific taxa (rangewide) have the same U.S. ESA status, then that status appears in the record for the "full" species as well. In this case, if the taxon at the species level is not mentioned in the Federal Register, the status appears in NatureServe Explorer with a flag (†).
(<i>value,value</i>)	Combination flagged values	The taxon itself is not named in the Federal Register as having U.S. ESA status; however, all of its infraspecific taxa (rangewide) have official status but two or more of the taxa do not have the same status. In this case, a combination of the statuses shown with a flag (†) indicates the statuses that apply to infraspecific taxa or populations within this taxon.
(PS)	partial status	Indicates "partial status"—status in only a portion of the species' range. Typically indicated in a "full" species record where at least one but not all of a species' infraspecific taxa or populations has U.S. ESA status.
(PS: <i>value</i>)	partial status	Indicates "partial status"—status in only a portion of the species' range. The value of that status appears because the listed entity (usually a population defined by geopolitical boundaries or defined administratively, such as experimental populations) does not have an individual entry in NatureServe Explorer. Information about the listed entity can be found in reports for the associated species.



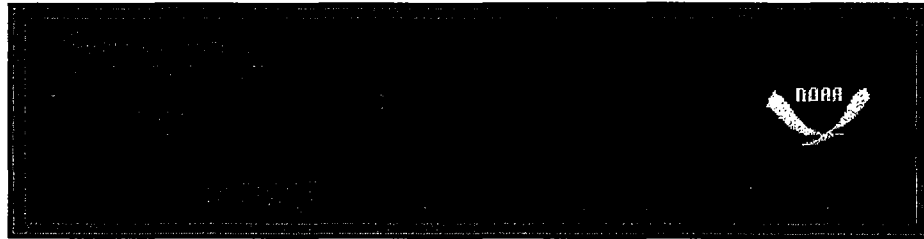
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Site Index



ATTACHMENT E
ESSENTIAL FISH HABITAT DESIGNATION



Guide to Essential Fish Habitat Designations in the Northeastern United States

Important Note To Users

This guide provides a geographic species list of Essential Fish Habitat (EFH) designations completed by the New England Fishery Management Council, Mid-Atlantic Fishery Management Council, South Atlantic Fishery Management Council, and the National Marine Fisheries Service (NMFS) in the Northeastern United States pursuant to the Magnuson-Stevens Fishery Conservation and Management Act. The guide is designed to provide government agencies and other interested parties with a [quick reference](#) to determine the species and life stages of fish, shellfish, and mollusks for which EFH has been designated in a particular area. Using a "point and click" format, it lists the EFH species in selected 10' x 10' squares of latitude and longitude along the coast. Although not provided in this guide, EFH has also been designated in offshore areas throughout the Exclusive Economic Zone. This guide lists the EFH species within an area and is not intended for use on its own. The actual EFH descriptions, the species habitat preferences and life history parameters are provided in [Guide to EFH Descriptions](#). The Councils' Fishery Management Plans (FMPs) should be referred to for more extensive information regarding EFH whenever necessary.

To skip the introduction, [click here](#).

To view EFH Designations for Skate Species, which are not in the map below, [click here](#).

Background

The 1996 amendments to the Magnuson-Stevens Act strengthened the ability of NMFS and the Councils to protect and conserve the habitat of marine, estuarine, and anadromous finfish, mollusks, and crustaceans. This habitat is termed "essential fish habitat" and is broadly defined to include "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The Act requires the Councils to describe and identify the essential habitat for the managed species, minimize to the extent practicable adverse effects on EFH caused by fishing, and identify other actions to encourage the conservation and enhancement of EFH.

The Act also establishes measures to protect EFH. NMFS must coordinate with other federal agencies to conserve and enhance EFH, and federal agencies must consult with NMFS on all actions or proposed actions authorized, funded, or undertaken by the agency that may adversely affect EFH. In turn NMFS must provide recommendations to federal and state agencies on such activities to conserve EFH. These recommendations may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH resulting from actions or proposed actions authorized, funded, or

undertaken by that agency.

Description of the Guide

To facilitate the EFH consultation process, this guide provides a quick method of ascertaining what species and lifestages have EFH in a given geographic area. The information is presented as tabular summaries for selected 10' x 10' squares of latitude and longitude. Each table includes a short but detailed description of the square, including a table of coordinates, as well as landmarks along the coastline such as towns, cities, necks, points, rocks, islands, bays, coves, shoals, marshes, beaches, banks, estuaries, creeks, thorofares, or rivers. The information for the square descriptions was taken from National Oceanic and Atmospheric Administration (NOAA) Coast Survey nautical charts. An attempt was made to ensure the names used in the description are as thorough as possible. However, if a question arises in regards to a location, please refer to the nautical charts or any reference map. Also, when in doubt concerning whether a project is divided by a square boundary, please refer to a map or chart.

For the offshore squares, the information is based primarily on the offshore trawl survey data that was used to support the Councils' EFH designations. For squares located within major estuaries and bays, the EFH designations are based on Estuarine Living Marine Resources data along with some trawl survey data. For detailed species lists for the major estuaries, select from the estuaries list instead of the 10 minute square. The [Guide to EFH Descriptions](#) provides an overall species list categorized by the Council's jurisdictions. Click on the species name to retrieve the EFH Designations as well as additional habitat information, where available. These summaries are not a substitute for the actual EFH designations provided in the Council's FMPs. Users should refer to the Councils' FMPs when questions arise.

Definitions

The tables are fairly straightforward, but the following definitions will help clarify exactly what each summary shows:

10 Minute Square Tables

The notation "X" in a table indicates that EFH has been designated within the square for a given species and life stage.

The notation "n/a" in the tables indicates some of the species either have no data available on the designated lifestages, or those lifestages are not present in the species' reproductive cycle. These species are:

- redbfish, which have no eggs (larvae born already hatched);
- long finned squid, short finned squid, surf clam, and ocean quahog which are referred to as pre-recruits and recruits (this corresponds with juveniles and adults in the tables);
- spiny dogfish, which have no eggs or larvae (juveniles born live);
- scup and black sea bass, for which there is insufficient data for the life stages listed, and no EFH designation has been made as of yet (some estuary data is available for all the life stages of these species, and some of the estuary squares will reflect this)

The Highly Migratory Species' life stages that are summarized within the squares are broken down into neonates, juveniles, and adults. For these species there are no 'egg' designations, and neonates correspond to the heading larvae within each summary table.

Estuaries Tables

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

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

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

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

These EFH designations of estuaries and embayments are based on the NOAA Estuarine Living Marine Resources (ELMR) program (Jury et al. 1994; Stone et al. 1994).

Disclaimer

The process involved in converting the EFH designations into this format was tedious. It consisted of determining the designations within each square, square by square and species life stage by species life stage, and then compiling the information into each table. Information has been double checked, but some errors may appear. When questions arise, the Councils' Fishery Management Plans are ultimately and legally determinative of the geographic limits of EFH.

To use the Guide, [click here](#).

If you have comments on the Guide, send an e-mail message to tojill.ortiz@noaa.gov.

Summary of Essential Fish Habitat (EFH) Designations

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

10' x 10' latitude and longitude squares included in this bay or estuary or river (southeast corner boundaries):

4220/7100; 4210/7050; 4210/7100

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

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

MASSACHUSETTS DIVISION OF MARINE FISHERIES - DESIGNATED SHELLFISH GROWING AREA

Division of
Marine Fisheries
SHELLFISH GROWING AREAS



Printed: December 06, 1999

STATION TYPE

- ⊗ CLASSIFICATION
- ⊗ POLLUTION SOURCE
- ⊗ AD-HOC
- ⊗ PRIMARY PSP
- ⊗ SECONDARY PSP
- ⊗ TERTIARY PSP
- ⊗ CHEMICAL
- ⊗ MARINA

BOUNDARY LINES CLASS AREA TYPE, AS OF 07/01/1999

- ▭ GROWING AREA
- ▭ CLASSIFICATION AREA
- ▭ TOWN
- ▭ APPROVED
- ▭ CONDITIONALLY APPROVED
- ▭ CONDITIONALLY RESTRICTED
- ▭ RESTRICTED
- ▭ MANAGEMENT CLOSE
- ▭ PROHIBITED

GROWING AREA CODE: GBH4
 AREA NAME: BOSTON INNER HARBOR
 AREA TOWN(S): BOSTON/CAMBRIDGE/CHELSEA/EVERETT/REVERE/SOMERVILLE

This product is for planning and educational purposes only. It is not to be used by itself for legal boundary definition or regulatory interpretation.

