

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
RIPDES PROGRAM
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908-5767

PUBLIC NOTICE OF PROPOSED PERMIT ACTION UNDER THE RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PROGRAM WHICH REGULATES DISCHARGES INTO THE WATERS OF THE STATE UNDER CHAPTER 46-12 OF THE RHODE ISLAND GENERAL LAWS OF 1956, AS AMENDED.

DATE OF NOTICE: Monday, July 26, 2010

PUBLIC NOTICE NUMBER: PN-10-03

DRAFT RIPDES PERMITS

RIPDES PERMIT NUMBER: RI0110035

NAME AND MAILING ADDRESS OF APPLICANT:

Rhode Island Department of Environmental Management
Division of Fish and Wildlife
4808 Tower Hill Road
Wakefield, RI 02879

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Lafayette Trout Hatchery
424 Hatchery Road
North Kingstown, RI 02852

RECEIVING WATER: Hatchery Brook a/k/a Goose Nest Brook and Belleville Upper Pond Inlet

RECEIVING WATER CLASSIFICATION: B

The facility, which is the source of the discharge, is located in North Kingstown and is engaged in the farming and husbandry of freshwater fish to stock ponds and rivers in the State of Rhode Island. Effluent containing fish waste and uneaten fish food are currently treated using a quiescent zone within the hatchery and solids from the quiescent zone are removed periodically in accordance with the facility's Best Management Practices (BMP) plan. Effluent is discharged into Hatchery Brook, also known as Belleville Upper Pond Inlet, which flows into Belleville Pond. The DEM's draft Total Maximum Daily Load (TMDL) document for Belleville Pond has identified the facility as a significant source of Phosphorus input to Belleville Pond, which has a Phosphorus impairment. DEM will host a public meeting on July 29th at 5pm at the North Kingstown Free Library located at 100 Boone Street, Wickford, RI to present and seek public comment on the TMDL, however, any comments on the draft RIPDES permit must be submitted to the DEM in accordance with the instructions below. The draft RIPDES permit contains a new monthly average Phosphorus limit of 0.025 mg/l, consistent with the recommendations of the TMDL, to address the facility's discharge of Phosphorus to Belleville Pond. In

addition, the permit also includes limits for other pollutants that ensure that there will not be any adverse impacts to water quality or human health. Based on an evaluation of the facility's Phosphorus monitoring in conjunction with its existing RIPDES permit, issued in 2003, the facility will not be able to meet the new Phosphorus limit under its existing configuration. Therefore, the DEM Office of Water Resources will enter into a consent agreement with the permittee in order to establish an enforceable schedule for completing any treatment plant process changes that will be necessary to bring the facility into permit compliance.

RIPDES PERMIT NUMBER: RI0001481

NAME AND MAILING ADDRESS OF APPLICANT:

Motiva Enterprises LLC
1100 Louisiana Street
Houston, TX 77002

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Motiva Enterprises LLC
Providence Terminal
520 Allens Avenue
Providence, RI 02905

RECEIVING WATER: Providence River

RECEIVING WATER CLASSIFICATION: SB1{a}

The facility, which is the source of the discharge, is a petroleum bulk storage station and terminal (SIC Code 5171), and is primarily engaged in the wholesale distribution of crude petroleum and petroleum products from bulk liquid storage facilities. The discharges from Outfalls 001A, 002A, and 003A are composed of storm water from the terminal site, parking lots, and containment or diked areas surrounding the storage tanks. Other non-storm water discharges include hydrostatic test water and treated tank bottom draw-off water (water that separates from the product during storage and settles to the bottom of the tanks). All storm water and hydrostatic test water is treated by an oil/water separator and all tank draw-off water is treated through a carbon adsorption system prior to discharge. Permit limits that are protective of water quality and human health have been developed and are included in the permit. In addition, ethanol monitoring has been added to the permit at Outfalls 001A, 002A, and 100A as Motiva replaced MTBE with ethanol as a gasoline additive in 2006.

RIPDES PERMIT NUMBER: RI0001651

NAME AND MAILING ADDRESS OF APPLICANT:

Getty Terminals Corporation
1500 Hempstead Turnpike
East Meadow, NY 11554

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Getty Terminals Corporation
Dexter Road and Massasoit Avenue
East Providence, RI

RECEIVING WATER: Ten Mile River

RECEIVING WATER CLASSIFICATION: B

The facility, which is the source of the discharge, is a petroleum bulk storage station and terminal (SIC Code 5171) and is primarily engaged in the wholesale distribution of crude petroleum and petroleum products from bulk liquid storage facilities. The facility has been inactive since April 2003 but it is anticipated that activities will resume in the near future. The discharge from Outfall 001A is composed of storm water from the terminal site, parking lots, and containment or diked area surrounding the storage tanks. A non-storm water discharge includes hydrostatic test water. Tank bottom draw-off water (water that separates from the product during storage and settles to the bottom of the tanks) is prohibited from being discharged through Outfall 001A. All storm water and hydrostatic test water is treated by an oil/water separator prior to discharge. Permit limits that are protective of human health and water quality have been developed and included in the permit. In addition, ethanol monitoring has been added at Outfall 001A in the case future terminal activity results in the use of ethanol as a fuel additive.

FURTHER INFORMATION ABOUT THE DRAFT PERMIT:

A fact sheet/statement of basis (describing the type of facility and significant factual, legal and policy questions considered in these permit actions) may be obtained at no cost by writing or calling DEM as noted below:

Samuel Kaplan, P.E.
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908-5767
(401) 222-4700, extension 7046
samuel.kaplan@dem.ri.gov

The administrative record containing all documents relating to these permit actions is on file and may be inspected, by appointment, at the DEM's Providence office mentioned above between 8:30 a.m. and 4:00 p.m., Monday through Friday, except holidays.

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

Pursuant to Chapter 42-17.4 of the Rhode Island General Laws a public hearing will be scheduled to consider these permit actions if requested. Requests for a Public Hearing must be submitted in writing to the attention of Samuel Kaplan at the address indicated above. Notice should be taken that if DEM receives a request from twenty-five (25) people, a governmental agency or subdivision, or an association having no less than twenty-five (25) members on or before 4:00 PM on Thursday, August 26, 2010, a public hearing will be held at the following time and place:

Thursday, September 2, 2010 at 4:00 PM
Room 280
235 Promenade Street

Interested persons should contact DEM to confirm if a hearing will be held at the time and location noted above.

235 Promenade Street is accessible to the handicapped. A stenographic record of the hearing will be made. Individuals requesting interpreter services for the hearing impaired must notify the DEM at 401-222-4462 (TDD) 48 hours in advance of the hearing date.

Interested parties may submit comments on the permit actions and the administrative record to the address above no later than 4:00 PM on Friday, September 3, 2010.

If, during the public comment period, significant new questions are raised concerning the permit, DEM may require a new draft permit or statement of basis/fact sheet or may reopen the public comment period. A public notice will be issued for any of these actions.

Any person, including the permittee/applicant, who believes these permit actions are inappropriate, must raise all reasonably ascertainable issues and submit all reasonably available arguments and factual grounds supporting their position, including all supporting material, by the close of the public comment period under Rule 41. The public comment period is from Monday, July 26, 2010 to Friday, September 3, 2010. Commenters may request a longer comment period if necessary to provide a reasonable opportunity to comply with these requirements. Comments should be directed to DEM as noted above.

FINAL DECISION AND APPEALS:

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final decision and forward a copy of the final decision to the permittee and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final decision, any interested person may submit a request for a formal hearing in accordance with the requirements of Rule 49.

Date

Eric A. Beck, P.E.
Supervising Sanitary Engineer
Office of Water Resources
Department of Environmental Management

AUTHORIZATION TO DISCHARGE UNDER THE
RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 46-12 of the Rhode Island General Laws, as amended, the

Rhode Island Department of Environmental Management
Division of Fish and Wildlife
4808 Tower Hill Road
Wakefield, RI 02879

is authorized to discharge from a facility located at

Lafayette Trout Hatchery
424 Hatchery Road
North Kingstown, RI 02852

to receiving waters named

Hatchery Brook a/k/a Goose Nest Brook

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

This permit shall become effective on _____.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on April 23, 2003.

This permit consists of 12 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this _____ day of _____, 2010.

DRAFT

Angelo S. Liberti, P.E., Chief of Surface Water Protection
Rhode Island Department of Environmental Management
Office of Water Resources
Providence, Rhode Island

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001 (Final Discharge from Raceway into Goose Nest Brook).

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

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs./day		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u> *(<u>Minimum</u>)	<u>Average Weekly</u> *(<u>Average</u>)	<u>Maximum Daily</u> *(<u>Maximum</u>)		
Flow ¹	2.5 MGD					Weekly	Estimate ²
BOD ₅ ¹			5 mg/l		10 mg/l	1/Month	Grab ²
TSS ¹			5 mg/l		10 mg/l	1/Month	Grab ²
pH ¹			(6.5)		(9.0)	1/Week	Grab ²
Dissolved Oxygen ¹			(5.0 mg/l)	(6.5 mg/l)		1/Week	Grab ²
Temperature ¹					68 °F	1/Week	Grab ²
Ammonia, Total (as N) ¹			1.368 mg/l		4.496 mg/l	1/Month	Grab ²
Phosphorus, Total ¹			0.025 mg/l		--- mg/l	1/Month	Grab ²
Phosphorus, Dissolved ¹			--- mg/l		--- mg/l	1/Month	Grab ²

--- Signifies a parameter which must be monitored and data must be reported.

Values in parentheses () are to be reported as Minimum/Average/Maximum for the reporting period rather than Average Monthly/Average Weekly/Maximum Daily.

¹These parameters shall be gathered in conjunction with the Sampling Plan listed in Part I.A.7 of the permit.

²Samples should be taken at the end of the raceway prior to discharge to surface waters.

2.
 - a. The pH of the effluent shall not be less than 6.5 standard units nor greater than 9.0 standard units at any time.
 - b. The discharge shall not cause visible discoloration of the receiving waters.
 - c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
3. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 ug/l);
 - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 ug/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.
 - c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant which was not reported in the permit application.
4. The effluent shall not contain materials in concentrations or combinations that are hazardous or toxic to aquatic life or which would impair the uses designated by the classification of the receiving water. This permit does not authorize the use of Chlorine or Formaldehyde containing chemicals in the hatchery.

5. There shall be no discharge of untreated wastewaters resulting from cleaning accumulated solids in the raceways/tanks, screens, and associated equipment.

6. The disposal of solid waste materials from the facility shall comply with the appropriate State, Local, and Federal statutes.

7. Sampling Plan

The facility must adhere to the requirements of the following sampling plan when analyzing its effluent:

a. Water quality data for flow, pH, dissolved oxygen, and temperature shall be gathered by facility staff. pH and dissolved oxygen samples shall be analyzed in accordance with the following test methods approved under 40 CFR 136.3:

- The approved method for pH is: Standard Method # 4500-H+B.
- The approved method for DO is: Standard Method # 4500-O C for Winkler Titration and 4500-O G for electrode.

In order for a device to be used, it must be approved by EPA for use with the method.

b. Water quality data for BOD₅, TSS, Ammonia, and Phosphorus shall be gathered by the facility's consultant who shall sample at random intervals without coordinating with the facility. The following test methods shall be used:

- BOD₅: Standard Methods #:5210B
- TSS: Standard Methods #:2540
- Ammonia: 350.1
- Total Phosphorus:
 - End of quiescent zone / final discharge from raceway into Goose Neck Brook: Standard Methods #4500-PF
- Dissolved Phosphorus:
 - End of quiescent zone / final discharge from raceway into Goose Neck Brook: Standard Methods #4500-P D

c. The facility must keep records of when effluent samples were taken and when it performed solids removal and report the dates in cover letters to DMR's.

8. Best Management Practices (BMP) Plan

a. The permittee shall maintain a BMP Plan to be followed in operating the facility; cleaning the raceways/tanks, screens, and other equipment; and disposing of any wastes. The purpose of the plan is to identify and describe the practices, which minimize the amount of pollutants discharged to surface and subsurface waters. Within thirty (30) days of the effective date of this permit, the permittee shall update its July 29, 2005 BMP Plan to address the requirements of this permit and submit the revised BMP Plan to the RIPDES Program for review and approval.

b. The plan shall be signed and certified as required in the General Conditions (Part II) of this permit. A current copy of the plan shall be maintained on-site.

c. The BMP Plan is an enforceable element of this permit and shall be implemented by the permittee at all times.

d. The permittee shall amend the BMP Plan within thirty (30) days whenever there is a change in facility design, construction, operation, or maintenance that affects the potential for the discharge of pollutants into surface or subsurface waters or if the RIPDES Program notifies the permittee of any deficiencies in the BMP Plan. The amendments to the BMP Plan shall be reviewed and approved by the RIPDES Program.

- e. If the Plan is reviewed by the RIPDES Program, the permittee may be notified at any time that the Plan does not meet one or more of the minimum requirements of this part. After such notification, the permittee shall make changes to the Plan and shall submit a written certification that the requested changes have been made to the RIPDES Program. Unless otherwise provided, the permittee shall have thirty (30) days to make the necessary changes.

- f. The BMP Plan shall include, at a minimum, the following items:
 - (1) Operations:
 - (i) A description of the pollution control equipment or methods used to enhance solids collection.
 - (ii) A description of how excessive solids build-up will be identified to trigger more frequent cleaning of the raceways/tanks and equipment, thereby minimizing the discharge of suspended and dissolved materials.
 - (iii) A description of the methods used in the feeding to minimize the amount of feed chemicals introduced into the discharge, including specific feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize the potential discharge of uneaten feed and waste products.
 - (iv) A description of the regular maintenance procedures used for the production and wastewater treatment systems in order to ensure that they are properly functioning.
 - (v) A description of the procedures used to ensure the proper storage of drugs, pesticides, and feed in a manner designed to prevent spills.
 - (vi) A description of the procedures for properly containing, cleaning, and disposing of any spilled material.
 - (vii) A description of the procedures used to inspect the production and wastewater treatment systems on a routine basis to identify and promptly repair any damage.

 - (2) Biological Pollution
 - (i) A description of the precautions that will be exercised by the facility to prevent aquatic organisms that are not indigenous to Rhode Island from becoming established in the local surface waters.
 - (ii) A description of the storage and treatment practices that will be implemented at Outfall 001 during plant upsets to prevent biological pollution (non-native organisms, fish parasites and fish diseases) from entering the receiving water.

- (3) Cleaning of raceways/tanks and other equipment:
- (i) A detailed description of how the accumulated solids are to be removed, dewatered, and methods for disposal. This shall include details identifying procedures for routine cleaning of rearing units and off-line settling basins, and procedures to minimize the discharge of accumulated solids during the inventorying, grading and harvesting of aquatic animals in the production system.
 - (ii) A description of where the removed material is to be placed and the techniques used to prevent it from reentering the surface waters from any on-site storage. If the material is removed from the site, describe who received the material and its method of disposal and/or reuse.
 - (iii) A detailed description of the procedures used to remove and dispose of aquatic animal mortalities on a regular basis to prevent discharge to the receiving waters.
- (4) Personnel training:
- (i) A description of the training to be provided for employees to assure they understand:
 - a. The goals and objectives of the BMPs;
 - b. The requirements of the RIPDES permit;
 - c. Their individual responsibilities for complying with the goals and objectives of the BMP Plan and the RIPDES permit;
 - d. The spill prevention and response procedures in order to ensure the proper clean-up and disposal of spilled material;
 - e. The proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment.
- (5) Medications and Chemicals used in the facility:
- (i) List in the BMP Plan all medications or chemicals that are expected to be used in the tanks/raceways. For each medication or chemical, identify or provide:
 - a. the product name of the medication or chemical;
 - b. a copy of the Material Safety Data Sheet (MSDS);
 - c. the chemical formulation of the medication or chemical;
 - d. the purpose or use of the medication or chemical;

- e. the dosage rate, frequency of application (hourly, daily, etc.), and duration (number of hours or days) of the treatment;
- f. the method of application;
- g. the method or methods used to detoxify the wastewater prior to discharge (if necessary);
- h. information on the persistence and toxicity of each medication or chemical;
- i. information on the U.S. Food and Drug Administration (USFDA) approval for the use of the medication or chemical on fish or fish related products for human consumption, and;
- j. a copy of any available aquatic toxicity data for each medication or chemical used (vendor data, literature data, etc.): no effect level and LC-50 for typical aquatic organisms (salmon, trout, daphnia, minnows, etc.).

(6) Notification Requirements:

- (i) The permittee must notify the RIPDES Program of the use of any Investigational New Animal Drug (INAD) or any extralabel drug use. Reporting is not required for an INAD or extralabel drug use that has been previously approved by FDA for a different species or disease if the INAD or extralabel use is at or below the approved dosage and involves similar conditions of use. This notification shall include:
 - a. A written report to the RIPDES Program of an INAD's impending use within seven (7) days of agreeing or signing up to participate in an INAD study. The written report must identify the INAD to be used, method of use, the dosage, and the disease or condition the INAD is intended to treat.
 - b. Verbal notification to the RIPDES Program no later than seven (7) days after initiating use of a INAD or extralabel drug of the drugs used, method of application, and the reason for using that drug.
 - c. A written report to the RIPDES Program within thirty (30) days after initiating use of an INAD or extralabel drug that identifies the drug used, the reason for treatment, dates and times of the addition (including duration), method of application, and the amount added.

- (ii) The permittee must notify the RIPDES Program of any failures in, or damage to, the structure of the raceways that result in an unanticipated discharge of pollutants. This notification shall include:
 - a. Verbal notification to the RIPDES Program within twenty-four (24) hours of discovery of a failure or damage that results in a discharge of pollutants, describing the cause of the failure or damage and identifying materials that have been released to the environment as a result of this failure.
 - b. A written report to the RIPDES Program within seven (7) days of discovery of the failure or damage documenting the cause, the estimated time elapsed until the failure or damage was repaired, an estimate of the material released as a result of the failure or damage, and steps being taken to prevent a reoccurrence.
- (iii) The permittee must notify the RIPDES Program of any spills of drugs, pesticides, or feed that results in a discharge to receiving waters. This notification shall include:
 - a. Verbal notification to the RIPDES Program within twenty-four (24) hours of its occurrence
 - b. A written report within seven (7) days. The report shall include the identity and quantity of the material spilled.
- (7) Recordkeeping:
 - (i) The permittee shall maintain records documenting the feed amounts and estimates of the numbers and weight of fish to calculate representative feed conversion ratios.
 - (ii) The permittee shall keep records documenting the frequency of cleaning, inspections, maintenance and repairs.

9. This permit serves as the State's Water Quality Certificate for the discharges described herein.

B. DETECTION LIMITS

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits listed below (the EPA method is noted for reference, other EPA approved methods found in 40 CFR Part 136 may be utilized). All sludge testing required by this permit shall be in conformance with the method detection limits found in 40 CFR 503.8. In accordance with 40 CFR Part 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the RIPDES program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020).

The report entitled "Methods for the Determination of Metals in Environmental Samples" includes a test which must be performed in order to determine if matrix interferences are present, and a series of tests to enable reporting of sample results when interferences are identified. Each step of the series of tests becomes increasingly complex, concluding with the complete Method of Standard Additions analysis. The analysis need not continue once a result which meets the applicable quality control requirements has been obtained. Documentation of all steps conducted to identify and account for matrix interferences shall be submitted along with the monitoring reports.

If, after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be submitted along with the monitoring report. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR Part 136, Appendix B.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", less than the reagent water MDL, or less than an effluent or sludge specific MDL. The effluent or sludge specific MDL must be calculated using the methods outlined in 40 CFR Part 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;
2. results reported as less than the MDL shall be included as values equal to the MDL, and the average shall be reported as "less than" the calculated value.

For compliance purposes, DEM will replace all data reported as less than the MDL with zeroes, provided that DEM determines that all appropriate EPA approved methods were followed. If the re-calculated average exceeds the permit limitation it will be considered a violation.

OTHER TOXIC POLLUTANTS

	<u>MDL ug/l (ppb)</u>
Antimony, Total	5.0
Arsenic, Total	5.0
Beryllium, Total	0.2
Cadmium, Total	1.0
Chromium, Total	5.0
Chromium, Hexavalent***	20.0
Copper, Total	20.0
Lead, Total	3.0
Mercury, Total	0.5
Nickel, Total	10.0
Selenium, Total	5.0
Silver, Total	1.0
Thallium, Total	5.0
Zinc, Total	20.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total***	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0
BOD	1 mg/L
TSS	1 mg/L
pH	0.1 pH units
DO (winkler titration)	20
DO (electrode)	50
Ammonia	50
Total Phosphorus	10
Dissolved Phosphorus	3

* Polynuclear Aromatic Hydrocarbons

** No Rhode Island Department of Environmental Management (RIDEM) MDL

*** Not a priority pollutant

NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs which are determined in reagent water may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

To help verify the absence of matrix or chemical interference the analyst is required to complete specific quality control procedures. For the metals analyses listed above the analyst must withdraw from the sample two equal aliquots; to one aliquot add a known amount of analyte, and then dilute both to the same volume and analyze. The unspiked aliquot multiplied by the dilution factor should be compared to the original. Agreement of the results within 10% indicates the absence of interference. Comparison of the actual signal from the spiked aliquot to the expected response from the analyte in an aqueous standard should help confirm the finding from the dilution analysis. (Methods for Chemical Analysis of Water and Wastes EPA-600/4-79/020).

For Methods 624 and 625 the laboratory must on an ongoing basis, spike at least 5% of the samples from each sample site being monitored. For laboratories analyzing 1 to 20 samples per month, at least one spiked sample per month is required. The spike should be at the discharge permit limit or 1 to 5 times higher than the background concentration determined in Section 8.3.2, whichever concentration would be larger. (40 CFR Part 136 Appendix B Method 624 and 625 subparts 8.3.1 and 8.3.11).

C. **MONITORING AND REPORTING**

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in Federal Regulations (40 CFR Part 136).

2. Reporting

Monitoring results obtained during the previous calendar quarter shall be summarized and reported on Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed calendar quarter. A copy of the analytical laboratory report(s), specifying analytical methods used, shall be included with each report submission.

Monitoring shall be reported as follows:

<u>Quarter Testing to be Performed</u>	<u>Report Due No Later Than</u>	<u>Results Submitted on DMR for</u>
January 1 - March 31	April 15	March
April 1 - June 30	July 15	June
July 1 - September 30	October 15	September
October 1 - December 31	January 15	December

The first report is due on _____ 15, 20__.

A signed copy of the DMRs shall be submitted to:

Rhode Island Department of Environmental Management
RIPDES Program
235 Promenade Street
Providence, Rhode Island 02908-5767

An additional copy of each DMR shall also be submitted to the North Kingstown Department of Water Supply.

All other reports and submittals required by this permit shall be submitted to:

Rhode Island Department of Environmental Management
RIPDES Program
235 Promenade Street
Providence, Rhode Island 02908-5767

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908-5767

STATEMENT OF BASIS

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO. **RI0110035**

NAME AND ADDRESS OF APPLICANT:

**Rhode Island Department of Environmental Management
Division of Fish and Wildlife
4808 Tower Hill Road
Wakefield, RI 02879**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**Lafayette Trout Hatchery
424 Hatchery Road
North Kingstown, RI 02852**

RECEIVING WATER: **Hatchery Brook a/k/a Goose Nest Brook**

CLASSIFICATION: **B**

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

The above named applicant has applied to the Rhode Island Department of Environmental Management – Office of Water Resources for the reissuance of a (RIPDES) Permit to discharge into the designated receiving water. The facility is engaged in the farming and husbandry of freshwater fish to stock ponds and rivers in the State of Rhode Island.

II. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters based on DMR data from October 2004 to September 2009 is shown on Attachment A-1.

III. Permit and Administrative Compliance Order Limitations and Conditions

The final effluent limitations and monitoring requirements may be found in the draft permit. RIPDES is willing to enter into a consent agreement with the facility to achieve effluent limitations for Phosphorus.

IV. Permit Basis and Explanation of Effluent Limitation Derivation

Introduction

The Rhode Island Department of Environmental Management, Division of Fish and Wildlife owns and operates the Lafayette Trout Hatchery located on Hatchery Road in North Kingstown, Rhode Island. The facility is engaged in the hatching and rearing of salmonids (trout) to supply State

waters. The discharge consists of flow-through water (with no recycling) which becomes the headwaters of Hatchery Brook.

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to RIGL Chapter 46-12, as amended. RIDEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).

Development of RIPDES permit limitations is a multi-step process consisting of: determining if Federal effluent guidelines apply; calculation of allowable water quality-based discharge levels based on background data and available dilution; comparing existing and proposed limits; and comparing discharge data to proposed limits. A description of these steps is presented below.

The RIPDES Program began to consider the specific issues addressed by this permit reissuance in conjunction with its review of the Best Management Practices Plan that the Office of Fish and Wildlife submitted to RIPDES on March 28, 2005. Fish and Wildlife submitted a revised BMP plan to RIPDES on July 29, 2005, in response to RIPDES' comments. The revised BMP plan contained a timeline for Fish and Wildlife to implement solids removal BMP's at the Lafayette Hatchery. The solids removal BMP plan called for the hatchery to convert its downstream raceways into settling basins, which Fish and Wildlife staff were to clean out once every 2-4 weeks with a vacuum pump which would deposit settling basin sludge into a tank truck to be hauled offsite.

Technology-Based Limits

On June 30 2004, the Environmental Protection Agency (EPA) finalized a new rule establishing effluent limitation guidelines (ELGs) for concentrated aquatic animal production (CAAP), or aquaculture, facilities. 40 CFR Part 451.12 mandates the implementation of Best Available Technology (BAT) which requires CAAP's to complete and implement a best management practices plan. This permit requires the hatchery to update its July 29, 2005 BMP plan so that it is consistent with the requirements of 40 CFR Part 451. The updated BMP Plan must be submitted to the RIPDES Program for review and approval within thirty (30) days of the effective date of this permit.

BPJ Limits

In accordance with Section 402 (a)(1) of the CWA and 40 CFR 125.3, if there are no technology-based effluent guidelines for a given pollutant, the DEM is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations. Limits for BOD and TSS in this permit are based upon BPJ.

Biochemical Oxygen Demand (BOD) – The BOD limits were derived in conjunction with the issuance of the 2003 permit from a review of effluent data from fish hatcheries in Rhode Island, as well as a review of EPA permits developed for fish hatcheries located in Massachusetts and New Hampshire, and a review of general permits developed for similar facilities in Idaho, Oregon, and South Carolina. A recent review of six hatchery permits drafted by EPA Region 1 indicated that a max. daily BOD limit of 10 mg/l was consistent with the limits in EPA Region 1's draft permits, therefore, BOD limits are being maintained from the 2003 permit at 5 mg/l average monthly and 10 mg/l maximum daily. A review of the historic BOD Discharge Monitoring Report (DMR) data indicates that the facility is able to meet these limits. The draft permit carries forward the quarterly monitoring frequency from the previous permit.

Total Suspended Solids (TSS) – The TSS limits were derived in conjunction with the issuance of the 2003 permit from a review of effluent data from fish hatcheries in Rhode Island, as well as a review of EPA permits developed for fish hatcheries located in Massachusetts and New Hampshire, and a review of general permits developed for similar facilities in Idaho, Oregon, and South Carolina. A review of six hatchery permits drafted by EPA Region 1 indicated that a max. daily TSS limit of 10 mg/l was consistent with the limits in EPA Region 1's draft permits. Therefore, TSS limits are being maintained from the 2003 permit at 5 mg/l average monthly and 10 mg/l maximum daily. A review of the DMR data indicates that the facility is able to comply with

the new limits. The draft permit carries forward the quarterly monitoring frequency from the previous permit.

Water Quality-Based Limits

Water quality based limits are calculated using background data, when available, and in-stream dilution. Appendix B of the Rhode Island Water Quality Regulations describes the flows used to determine the in-stream dilution. Specifically, the river flow to be utilized for freshwater human health non-carcinogen criteria is the 30 consecutive day low flow with a recurrence frequency of once in five years (30Q5), freshwater human health carcinogenic criteria use the harmonic mean flow, and aquatic life criteria use the 7 consecutive day low flow with a recurrence frequency of once in 10 years (7Q10). These river flows in addition to the facility design flow are used to determine the available dilution. However, since this facility's discharge forms the headworks of Hatchery Brook, the 30Q5, harmonic mean, and 7Q10 river flows are zero. As a result, no dilution is available.

Based on the available dilution and the water quality criteria the allowable water quality-based discharge concentrations are established using 80% allocation when no background data is available and 90% allocation when background data was available. There is no background data available, therefore, the allowable water quality-based discharge levels are set equal to 80% of the water quality criteria for Class B waters as listed in Appendix B of the Rhode Island Water Quality Regulations.

In accordance with 40 CFR Part 122.4(d)(1)(iii), it is only necessary to establish limitations for those pollutants in the discharge which have the reasonable potential to cause or contribute to Phosphorus in this permit are water quality-based.

Total Ammonia as N - The draft permit maintains average monthly and maximum daily Ammonia limits that are water quality-based. These limits were deemed necessary since concentrated aquatic animal facilities are known contributors of ammonia. As indicated above, since no dilution is available and since there is no background data, the allowable water quality-based discharge levels are equal to 80% of the water quality criteria for Class B waters as listed in Appendix B of the Rhode Island Water Quality Regulations. Since the Ammonia criteria are based on pH and temperature, limits for those constituents were also placed in the permit. The highest pH and the highest temperature yield the lowest Ammonia criteria. The Ammonia limits were based upon an in-stream pH of 8.0 s.u. and the maximum temperature limit of 20 °C (68 °F). The limits are 1.368 mg/l average monthly and 4.496 mg/l maximum daily. A review of the historic Ammonia Discharge Monitoring Report (DMR) data indicates that the facility is able to meet these limits. The draft permit includes monthly monitoring.

Temperature – The draft permit includes a maximum temperature limit of 68 °F. This limit is consistent with the maximum temperature limit for heated discharges to fresh water coldwater habitats and will also ensure that ammonia toxicity will not be exhibited in the receiving water, since the water quality-based Ammonia limit is dependent on temperature. The draft permit includes a weekly monitoring frequency. Historical data indicates that the facility is able to comply with this permit limit.

pH – The draft permit includes a minimum pH limit of 6.5 s.u. and a maximum pH limit of 9.0 s.u., which is equivalent to the water quality criteria for freshwater receiving waters contained in the Rhode Island Water Quality Regulations. The weekly monitoring frequency is being maintained. Historical data indicates that the facility will be able to comply with these limits.

Total Phosphorus – The Office of Water Resources has documented receiving water impacts in the Belleville Pond system in conjunction with its development of the Belleville Ponds TMDL. The main impact is the overgrowth of aquatic and emergent plants which the TMDL group attributes to Phosphorus inputs to the pond system. The following is a list of plant species that have been documented as being present in the Belleville Pond system:

- Fanwort covers much of the pond bottom;
- Chinese water chestnut;
- coontail and duckweed;

- other aquatics include white and yellow water lily, water shield, bladderwort, and macrophytic algae; and
- Phragmites dominate the shoreline of the pond

Inspection of historic photographs shows that the pond is filling in with plants and/or sediment. The Office of Water Resources has documented that most of the surface (specifically the western half of the pond) is covered in some form of plant, be it floating or submerged, or an algae.

To control the documented excessive plant growth in Belleville Pond, the Office of Water Resources developed a TMDL document dated December 2009 that assigns the Lafayette Hatchery a Total Phosphorus limit of 0.025 mg/L at the outfall. Consistent with this TMDL, the permit includes a Total Phosphorus limit of 0.025 mg/L based on the hatchery's historic effluent data shown in Attachment A-1, RIPDES anticipates that the Lafayette Hatchery will not be able to comply with a Total Phosphorus limit of 0.025 mg/L, therefore, RIPDES is willing to enter into a consent agreement to bring the Lafayette hatchery into compliance. Upon the issuance of the hatchery permit, it is anticipated that Water Resources and Fish and Wildlife will enter into a consent agreement to bring the Lafayette hatchery into compliance with the new Phosphorus limit. The Belleville Pond TMDL document provides a more detailed discussion of this waste load allocation approach.

Dissolved Phosphorus – Effluent monitoring for dissolved phosphorus was added to this permit to provide additional information to characterize the distribution between dissolved phosphorus and total phosphorus. The test method which is to be used is referenced in the sampling plan.

Dissolved Oxygen (DO) – The draft permit includes limits for DO that are based upon water quality standards from the Rhode Island Water Quality Regulations. The discharge from this facility is to a Class B Cold Water Fish Habitat that has an instantaneous minimum DO Standard of 5.0 mg/L and a 7 day mean minimum DO standard of 6.5 mg/L. Therefore, the minimum DO limit is 5.0 mg/L and the minimum average DO limit is 6.5 mg/L. The draft permit includes a weekly monitoring frequency. Historical data indicates that the facility will be able to comply with this permit limit.

Permit limits were eliminated for Total Residual Chlorine (TRC) and Formaldehyde in conjunction with this reissuance because the Lafayette Hatchery does not use these chemicals and, as a result, the permit does not authorize the use of chlorine or formaldehyde containing chemicals.

Antidegradation

The Office has determined that all permit limitations are consistent with the Rhode Island Antidegradation policy. Limitations were established in the permit to restrict the permittee's discharge and ensure that water quality criteria will be met. Since the draft permit is being reissued with allowable discharge limits as or more stringent than the current permit with no change in outfall location, antidegradation regulations do not apply.

Antibacksliding

Antibacksliding, as defined at 40 CFR 122.44(1)(I) requires reissued permits to contain limitations that are as stringent or more stringent than the limits in the previous permit unless the circumstances allow the application of one of the defined exceptions to this regulation. All proposed limits are at least as stringent as those in the previous permit, therefore, antibacksliding regulations have been met.

Remaining Conditions

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits. The effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41 (j), 122.44 (i), and 122.48 to yield data representative of the discharge.

V. **Comment Period, Hearing Requests, and Procedures for Final Decisions**

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the Rhode Island Department of Environmental Management. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Director finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director 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 the final permit decision any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

VI. **DEM Contact**

Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays from:

Samuel Kaplan, P.E.
Sanitary Engineer
RIPDES Program
Office of Water Resources
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, extension: 7046

Date

Eric A. Beck, P.E.
Supervising Sanitary Engineer
RIPDES Permitting Section
Office of Water Resources
Department of Environmental Management

ATTACHMENT A-1

DESCRIPTION OF DISCHARGE: The discharge from the farming and husbandry of freshwater fish to stock in ponds and rivers in the State of Rhode Island.

DISCHARGE: 001A – Flow-through hatchery water

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE:

PARAMETER	AVERAGE¹	MAXIMUM²
FLOW (MGD)	1.8043 MGD	2.01 MGD
BOD ₅ (PPM)	1.7217 mg/l	4.5 mg/l
Ammonia Total (as N)	0.3674 mg/l	0.4626 mg/l
Dissolved Oxygen (DO) (PPM)	7.732 mg/l	7.223 mg/l minimum
pH	6.774 S.U. (minimum)	7.128 S.U. (maximum)
Phosphorus, total (as P)		0.1313 mg/L
TSS	4.33 mg/l	8.6667 mg/l
Temperature	52.75 deg. F (maximum)	

¹Data represents the mean of the monthly average data from October 2004 to September 2009.

²Data represents the mean of the daily maximum data from October 2004 to September 2009.

³Data is from October 2004 to December 2004.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs./day		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u> *(Minimum)	<u>Average Weekly</u> *(Average)	<u>Maximum Daily</u> *(Maximum)		
Flow		--- MGD				Monthly	Estimate
Oil & Grease					15 mg/l	2/Month	Grab ¹
TSS					20 mg/l	2/Month	Grab ¹
Benzene					--- ug/l	Quarterly	Grab ²
Toluene					--- ug/l	Quarterly	Grab ²
Ethylbenzene					--- ug/l	Quarterly	Grab ²
Total Xylenes					--- ug/l	Quarterly	Grab ²
Methyl Tertiary Butyl Ether (MTBE)					--- ug/l	Quarterly	Grab ^{2,3}
Ethanol					--- µg/l	Quarterly	Grab ^{2,4}
Polynuclear Aromatic Hydrocarbons (PAHs)							
Acenaphthene					--- ug/l	Annually	Grab ²
Acenaphthylene					--- ug/l	Annually	Grab ²
Anthracene					--- ug/l	Annually	Grab ²
Benzo (a) anthracene					--- ug/l	Annually	Grab ²
Benzo (a) pyrene					--- ug/l	Annually	Grab ²

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<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs./day		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>		
Benzo (b) fluoranthene					--- ug/l	Annually	Grab ²
Benzo (ghi) perylene					--- ug/l	Annually	Grab ²
Benzo (k) fluoranthene					--- ug/l	Annually	Grab ²
Chrysene					--- ug/l	Annually	Grab ²
Dibenzo (a,h) anthracene					--- ug/l	Annually	Grab ²
Fluoranthene					--- ug/l	Annually	Grab ²
Fluorene					--- ug/l	Annually	Grab ²
Indeno (1,2,3-cd) pyrene					--- ug/l	Annually	Grab ²
Naphthalene					--- ug/l	Annually	Grab ²
Phenanthrene					--- ug/l	Annually	Grab ²
Pyrene					--- ug/l	Annually	Grab ²
Sum of All PAHs					--- ug/l	Annually	Grab ²

--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

*Values in parentheses () are to be reported as Minimum/Average/Maximum for the reporting period rather than Average Monthly/Average Weekly/Maximum Daily.

¹One (1) sample shall be taken during wet weather and one (1) during dry weather. Wet weather samples must be collected during the first 30 minutes from discharges resulting from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event. If this is not feasible, wet weather samples may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number 001A. Such discharges shall be limited and monitored by the permittee as specified below:

²One sample shall be taken during first 30 minutes of discharge from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event; if this is not feasible, it may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

³Beginning on the effective date of the permit, the permittee shall perform quarterly testing for MTBE on samples collected from discharge outfall 001A. If the results of four (4) consecutive quarters of MTBE sampling for this outfall demonstrate values below the method detection limit for MTBE (as defined in Part I.D.), then the permittee may submit a request to cease the required monitoring at outfall 001A. The permittee shall continue quarterly sampling until RI DEM approval of any requests to cease sampling.

⁴Ethanol shall be analyzed using EPA method 1671.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A (effluent from the oil/water separator treating storm water and hydrostatic test water).

2.
 - a. The pH of the effluent shall not be less than 6.5 nor greater than 9.0 standard units at any time, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.
 - b. The discharge shall not cause visible discoloration of the receiving waters.
 - c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
3. In addition to the required sampling results submitted in accordance with Part I.A.1. of this permit, the permittee must provide the date and duration (hours) of the storm event sampled, the total depth of rainfall (inches), and the total volume of runoff (Ft³). This information must be submitted with the Discharge Monitoring Report forms at the frequency specified in Part I.E.2. of this permit.
4. If the permittee is unable to collect samples due to adverse climatic conditions which make the collection of samples dangerous or impractical, the permittee must submit, in lieu of sampling data, a description of why samples could not be collected, including available precipitation data for the monitoring period. The permittee can only exercise this waiver once in a two (2) year period. A waiver is not required if there was no flow from the outfall for the reporting period. This information must be submitted with the Discharge Monitoring Report forms for the applicable reporting period.
5. The permittee shall not add chemicals (i.e., disinfecting agents, detergents, emulsifiers, etc.) or "bioremedial agents including microbes" to the collection and treatment system without prior approval from DEM.
6. The permittee shall not discharge any sludge and/or bottom deposits from any storage tank, basin and/or diked area to the receiving water. Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, stilling basins, the oil/water separator, observation basins with baffles, petroleum product storage tanks, baffled storage tanks collecting spills, and tank truck loading rack sumps.
7. There shall be no direct discharge to the oil/water separator of untreated marine transportation water (water which separates and/or accumulates during marine transportation), tank truck wash water or wash water from the truck loading rack, vehicle or equipment washing activities, and ship barge/bilge water.
8. This permit does not authorize discharges to the separate storm sewer system or to waters of the State from floor drains and trench drains located inside of buildings and/or hangars.
9. The discharge of contaminated groundwater, including contaminated groundwater from infiltration/inflow, into the storm water collection system or into any oil/water separator is prohibited and shall be addressed by the permittee pursuant to Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases ("Remediation Regulations") under the direction of the Office of Waste Management, in association with the Office of Water Resources. Nothing in this paragraph shall be construed to relieve the permittee's obligation to investigate and/or remediate contaminated groundwater in compliance with the Remediation Regulations or the regulations of the Office of Water Resources.
10. Unless identified by the permittee or the DEM as significant sources of pollutants to waters of the United States, the following non-storm water discharges are authorized under this permit to enter the storm water drainage system: discharges from fire fighting activities; fire hydrant flushings; external building washdown that do not use detergents; lawn watering; uncontaminated groundwater; springs; air conditioning condensate;

potable waterline flushings; and foundation or footing drains where flows are not contaminated with process materials, such as solvents, or contaminated by contact with soils, where spills or leaks of toxic or hazardous materials has occurred. If any of these discharges may reasonably be expected to be present and to be mixed with storm water discharges, they must be specifically identified and addressed in the facility's Storm Water Pollution Prevention Plan (SWPPP) required in Part I.C.

11. There shall be no discharge of tank bottom draw-off water (water which separates from product during storage and settles to the tank bottom) to waters of the State.
12. The permittee shall notify the Office of Water Resources at least twenty-four (24) hours prior to the commencement of any proposed hydrostatic-test water discharges. Prior to testing, the interior of the tank(s) and/or piping being tested shall be cleaned and certified to be free of petroleum product. There shall be no discharge of tank and/or pipe cleaning residual/debris to the oil/water separator. At a minimum, four (4) representative samples shall be taken of the hydrostatic-test water: one (1) grab sample of the influent and three (3) serial-grab samples of the effluent, which after treatment through the oil water separator is discharged to the receiving waters. 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 serial-grab sample shall be taken during the initial phase of the discharge; the second serial grab sample is to be taken midway through the discharge; and the final sample shall be taken at the end of the discharge. All effluent samples should be taken directly from the effluent of the tank prior to discharge into the oil/water separator and/or mixing with any other authorized waste streams. These samples should provide adequate characterization of the influent and effluent hydrostatic-test water.

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

- | | |
|---------------------------------|---|
| a. Total Suspended Solids (TSS) | e. Dissolved Oxygen (DO) |
| b. Oil & Grease (O/G) | f. pH |
| c. Total Iron | g. Polynuclear Aromatic Hydrocarbons |
| d. Chemical Oxygen Demand | h. Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX) |

The hydrostatic test water released from the tank(s), after treatment through the oil/water separator, must satisfy all the effluent limitations and conditions of this permit. The surface of the oil/water separator should be routinely observed to determine if there is any detectable increase in the separated oil layer to prevent inadvertent hydrocarbon release to the receiving water(s). A logbook shall be kept to document the start and end of each hydrostatic test, the total flow discharged and all monitoring data.

Should any visual inspection or suspicious odor indicate the presence of petroleum while inspecting the oil/water separator as required above or if laboratory results from the representative samples of the discharge become available that may indicate an exceedance of the permit effluent limits, the transfer shall be halted immediately followed by notification to the RI DEM of the suspended discharge. After the discharge of the hydrostatic test water has been completed, the permittee shall submit a letter/report to the RI DEM within thirty (30) days, summarizing the results of the transfer. This report shall contain: the date(s) of hydrostatic test water transfer; the volume of hydrostatic test water transferred; and the analytically determined values of the discharge parameters.

13. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the

permit, if that discharge will exceed the highest of the following "notification levels":

- (1) One hundred micrograms per liter (100 ug/l);
- (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;
- (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
- (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.

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

- (1) Five hundred micrograms per liter (500 ug/l);
- (2) One milligram per liter (1 mg/l) for antimony;
- (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
- (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.

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

14. This permit serves as the State's Water Quality Certificate for the discharges described herein.

B. OPERATION AND MAINTENANCE

1. All surface runoff from process or work areas at the facility shall be contained and diverted to the oil/water separator. Process or work areas are defined for the purpose of this permit as all those areas subject to spills and leaks of raw materials or products containing toxic or hazardous substances, (i.e., diked areas, docks, loading or unloading areas, yard areas, etc.).
2. The release of runoff from any diked area or holding basin shall be controlled so that this discharge alone or in combination with all other wastewater's does not exceed the optimum design flow rate for the oil water separator or cause violations of the effluent limitations specified in this permit.
3. The wastewater collection and treatment system shall be operated and maintained in order to provide optimal treatment of the wastewaters prior to discharge to the receiving water.
4. The SWPPP in Part I.C. shall specifically address the adequacy of containment of leaks

and spills in storage areas (from Drums, Additive Tanks, Petroleum Product Tanks, etc.) and truck loading area(s). Adequate containment must exist at these locations so as to prevent untreated discharges from reaching any surface water.

5. A schedule for routinely monitoring and cleaning the oil/water separator for both sludge layer and oil layer shall be specified in the SWPPP. In addition, the SWPPP shall identify procedures for insuring compliance with the permit during such cleaning or maintenance periods.
6. The permittee shall assure the proper management of solid and hazardous waste in accordance with regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1978 (40 U.S.C. 6901 et seq.), or amendments thereto.

C. **STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS**

1. A Storm Water Pollution Prevention Plan (SWPPP) shall be maintained and implemented by the permittee. The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants, which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the Plan shall describe and ensure the implementation of Best Management Practices (BMPs) which are to be used to reduce or eliminate the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. This plan shall be consistent with the EPA guidance entitled "Storm Water Management for Industrial Activities – Developing Pollution Prevention Plans and Best Management Practices", 1992 (EPA 832-R-92-006).
2. The plan shall be signed by the permittee in accordance with RIPDES Rule 12 and retained on-site. The Plan shall be made available upon request by the DEM.
3. If the Plan is reviewed by the DEM the permittee may be notified at any time that the Plan does not meet one or more of the minimum requirements of this part. After such notification from the DEM, the permittee shall make changes to the Plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided by the DEM, the permittee shall have thirty (30) days after such notification to make the necessary changes.
4. The permittee shall immediately amend the Plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect of the potential for the discharge of pollutants to the waters of the State; a release of reportable quantities of hazardous substances and oil; or if the SWPPP proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Changes must be noted and then submitted to DEM. Amendments to the Plan may be reviewed by DEM in the same manner as Part I.C.3. of this permit.
5. The SWPPP shall include, at a minimum, the following items:
 - a. Description of Potential Pollutant Sources. The Plan must provide a description of potential sources which may be reasonably expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. It must identify all activities and significant materials, which may potentially be significant pollutant sources. Each plan shall include:
 - (1) A site map indicating: a delineation of the drainage area of each storm water outfall, each existing structural control measure to reduce pollutants in storm water runoff, locations where significant materials are exposed to

storm water, locations where significant leaks or spills have occurred, a delineation of all impervious surfaces, all surface water bodies, all separate storm sewers, and the locations of the following activities where such areas are exposed to storm water: fueling stations, vehicle and equipment maintenance and/or cleaning areas, material handling areas, material storage areas, process areas, and waste disposal areas;

- (2) A topographic map extending one-quarter of a mile beyond the property boundaries of the facility;
- (3) An estimate of the overall runoff coefficient for the site, determined by an acceptable method, such as, but not limited to, area weighting;
- (4) A narrative description of significant materials that have been treated, stored, or disposed of in a manner to allow exposure to storm water between the time of three (3) years prior to the issuance of this permit to the present; method of on-site storage or disposal; materials management practices employed to minimize contact of these materials with storm water runoff between the time of three (3) years prior to the issuance of this permit and the present; materials loading and access areas; the location and description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and description of any treatment the storm water receives;
- (5) A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at the facility three (3) years prior to the effective date of this permit to the present;
- (6) A list of any pollutants limited in effluent guidelines to which a facility is subject under 40 CFR Subchapter N, any pollutants listed on a RIPDES permit to discharge process water, and any information required under RIPDES Rule 11.02(a)(14)(iii)-(v) or 40 CFR 122.21(g)(iii)-(v);
- (7) For each area of the facility that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an estimate of the types of pollutants, which are likely to be present in storm water associated with industrial activity;
- (8) A summary of existing sampling data describing pollutants in storm water discharges from the facility; and

b. Storm Water Management Controls. The permittee must develop a description of storm water management controls appropriate for the facility and implement such controls. The appropriateness for implementing controls listed in the Plan must reflect identified potential sources of pollutants at the facility. The description of storm water management controls must address the following minimum components, including a schedule for implementing such controls:

- (1) *Pollution Prevention Team.* The Plan must identify a specific individual(s) within the facility organization as members of a team that are responsible for developing the Plan and assisting the plant manager in its implementation, maintenance, and revision. The Plan must clearly identify the responsibilities of each team member. The activities and responsibilities of the team must address all aspects of facility's Plan.

- (2) *Risk Identification and Assessment/Material Inventory.* The Plan must assess the potential of various sources which contribute pollutants to storm water discharge associated with the industrial activity. The Plan must include an inventory of the types of materials handled. Each of the following must be evaluated for the reasonable potential for contributing pollutants to runoff: loading and unloading operations, outdoor manufacturing or processing activities, significant dust or particulate generating processes, and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced, or discharged; the likelihood of contact with storm water, and the history of significant leaks or spills of toxic or hazardous pollutants.
- (3) *Preventative Maintenance.* A preventative maintenance program must involve inspection and maintenance of storm water management devices (i.e., oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdown or failures resulting in discharges of pollutants to surface waters.
- (4) *Good Housekeeping.* Good housekeeping requires the maintenance of a clean, orderly facility. If applicable, the following areas must be specifically addressed:
 - i. Vehicle and Equipment Storage Areas: The storage of vehicles and equipment with actual or potential fluid leaks must be confined to designated areas (delineated on the site map). The plan must describe measures that prevent or minimize contamination of the storm water runoff from these areas. The facility shall consider the use of drip pans under vehicles and equipment, indoor storage of the vehicles and equipment, installation of berming and diking of this area, use of absorbents, roofing or covering storage areas, cleaning pavement surface to remove oil and grease, or other equivalent methods.
 - ii. Truck Loading Racks: The plan must describe measures that prevent or minimize contamination of the storm water runoff from fuel loading areas. The facility shall consider berming the loading rack area(s), using spill and overflow protection and cleanup equipment, minimizing run-on/runoff of storm water to the loading rack area(s) by way of storm water drains, using dry cleanup methods, collecting the storm water runoff and providing treatment or recycling, or other equivalent measures.
 - iii. Material Storage Areas: Storage units of all materials (e.g., used oil, used oil filters, spent solvents, paint wastes, radiator fluids, transmission fluids, hydraulic fluids) must be maintained in good condition, so as to prevent contamination of storm water, and plainly labeled (e.g., "used oil", "spent solvents", etc.). The plan must describe measures that prevent or minimize contamination of the storm water runoff from such storage areas. The facility shall consider indoor storage of the materials, installation of berming and diking of the area, minimizing run-on/runoff of storm water to the areas, using dry cleanup methods, collecting the storm water runoff and providing treatment, or other equivalent methods.

- iv. Vehicle and Equipment Cleaning Areas: The plan must describe measures that prevent the discharge of vehicle and equipment wash waters, including tank cleaning operations. The facility shall consider performing all cleaning operations indoors, covering the cleaning operation, ensuring that all washwaters drain to the intended collection system, collecting the storm water runoff from the cleaning area and providing treatment or recycling, or other equivalent measures. These discharges are not authorized by this permit.
 - v. Vehicle and Equipment Maintenance Areas: The plan must describe measures that prevent or minimize contamination of the storm water runoff from all areas used for vehicle and equipment maintenance. The facility shall consider performing all maintenance activities indoors, using drip pans, maintaining an organized inventory of materials used in the shop, draining all parts of fluids prior to disposal, prohibiting wet cleanup practices where the practices would result in the discharge of pollutants to storm water drainage systems, using dry cleanup methods, collecting the storm water runoff from the maintenance area and providing treatment or recycling, minimizing run-on/runoff of storm water areas or other equivalent measures.
- (5) *Spill Prevention and Response Procedure*. Areas where potential spills can occur, and their accompanying drainage points, must be identified clearly in the SWPPP. The potential for spills to enter the storm water drainage system must be eliminated wherever feasible. Where appropriate, specific material handling procedures, storage requirements, and procedures for cleaning up spills must be identified in the Plan and made available to the appropriate personnel. The necessary equipment to implement a clean up must also be made available to personnel. The permittee shall immediately notify the office of releases in excess of reportable quantities.
 - (6) *Storm Water Management*. The Plan must contain a narrative consideration of the appropriateness of traditional storm water management practices. Based on an assessment of the potential of various sources at the plant to contribute pollutants to storm water discharges associated with industrial activity (see Part I.C.5.b.2 of this Permit), the Plan must provide that measures, determined to be reasonable and appropriate, must be implemented and maintained.
 - (7) *Sediment and Erosion Prevention*. The Plan must identify areas which; due to topography, activities, or other factors; have a high potential for significant soil erosion and identify measures to limit erosion.
 - (8) *Employee Training*. Employee training programs must inform personnel responsible for implementing activities identified in the Plan, or otherwise responsible for storm water management at all levels, of the components and goals of the Plan. Training should address topics such as spill response, good housekeeping, and material management practices. The Plan must identify periodic dates for such training.
 - (9) *Disposal Procedures*. The disposal procedures for tank bottom waters, tank bottom sludge, oil/water separator sediments, oil/water separator oils, oil absorbent cleaning material(s) and any washdown waters containing detergents, dispersants, emulsifiers, etc. must be

documented in the plan.

(10) *Visual Inspections.* Qualified plant personnel must be identified to inspect designated equipment and plant areas. Material handling areas must be inspected for evidence of, or the potential for, pollutants entering the drainage system. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. Records of inspections must be maintained on site for at least five (5) years.

(11) *Recordkeeping and Internal Reporting Procedures.* Incidents such as spills, or other discharges, along with other information describing the quality and quantity of storm water discharges must be included in the records. All inspections and maintenance activities must be documented and maintained on site for at least five (5) years.

c. Site Inspection. An annual site inspection must be conducted by appropriate personnel named in the SWPPP to verify that the description of potential pollutant sources required under Part I.C.5.a is accurate, that the drainage map has been updated or otherwise modified to reflect current conditions, and controls to reduce pollutants in storm water discharges associated with industrial activity identified in the Plan are being implemented and are adequate. The following areas shall be included in all inspections: storage areas for vehicles and equipment awaiting maintenance, truck loading rack area(s), vehicle and equipment maintenance areas (both indoors and outdoors), material storage areas, vehicle and equipment cleaning areas, and loading and unloading areas. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. A copy of the annual site inspection report and records documenting significant observations made during the site inspection must be retained as part of the SWPPP for a minimum of five (5) years.

d. Consistency with Other Plans. Storm water management controls may reflect requirements for Spill Prevention Control and Counter-measure (SPCC) plans under Section 311 of the CWA or Best Management Practices (BMP) Programs otherwise required by a RIPDES permit and may incorporate any part of such plans into the SWPPP by reference.

D. DETECTION LIMITS

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits listed below (the EPA method is noted for reference, other EPA approved methods found in 40 CFR Part 136 may be utilized). All sludge testing required by this permit shall be in conformance with the method detection limits found in 40 CFR 503.8. In accordance with 40 CFR Part 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the RIPDES program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020).

The report entitled "Methods for the Determination of Metals in Environmental Samples" includes a test which must be performed in order to determine if matrix interferences are present, and a series of tests to enable reporting of sample results when interferences are identified. Each step of the series of tests becomes increasingly complex, concluding with the complete Method of Standard Additions analysis. The analysis need not continue once a result which meets the applicable quality control requirements has been obtained. Documentation of all steps conducted to identify and account for matrix interferences shall be submitted along with the monitoring reports.

If, after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be submitted along with the monitoring report. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR Part 136, Appendix B.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", less than the reagent water MDL, or less than an effluent or sludge specific MDL. The effluent or sludge specific MDL must be calculated using the methods outlined in 40 CFR Part 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;
2. results reported as less than the MDL shall be included as values equal to the MDL, and the average shall be reported as "less than" the calculated value.

For compliance purposes, DEM will replace all data reported as less than the MDL with zeroes, provided that DEM determines that all appropriate EPA approved methods were followed. If the re-calculated average exceeds the permit limitation it will be considered a violation.

LIST OF TOXIC POLLUTANTS

The following list of toxic pollutants has been designated pursuant to Section 307(a)(1) of the Clean Water Act. The Method Detection Limits (MDLs) represent the required Rhode Island MDLs.

Volatiles - EPA Method 624		MDL ug/l (ppb)	Pesticides - EPA Method 608		MDL ug/l (ppb)
1V	acrolein	10.0	18P	PCB-1242	0.289
2V	acrylonitrile	5.0	19P	PCB-1254	0.298
3V	benzene	1.0	20P	PCB-1221	0.723
5V	bromoform	1.0	21P	PCB-1232	0.387
6V	carbon tetrachloride	1.0	22P	PCB-1248	0.283
7V	chlorobenzene	1.0	23P	PCB-1260	0.222
8V	chlorodibromomethane	1.0	24P	PCB-1016	0.494
9V	chloroethane	1.0	25P	toxaphene	1.670
10V	2-chloroethylvinyl ether	5.0			
11V	chloroform	1.0	Base/Neutral - EPA Method 625		MDL ug/l (ppb)
12V	dichlorobromomethane	1.0	1B	acenaphthene *	1.0
14V	1,1-dichloroethane	1.0	2B	acenaphthylene *	1.0
15V	1,2-dichloroethane	1.0	3B	anthracene *	1.0
16V	1,1-dichloroethylene	1.0	4B	benzidine	4.0
17V	1,2-dichloropropane	1.0	5B	benzo(a)anthracene *	0.013
18V	1,3-dichloropropylene	1.0	6B	benzo(a)pyrene *	0.023
19V	ethylbenzene	1.0	7B	3,4-benzofluoranthene *	0.018
20V	methyl bromide	1.0	8B	benzo(ghi)perylene *	2.0
21V	methyl chloride	1.0	9B	benzo(k)fluoranthene *	0.017
22V	methylene chloride	1.0	10B	bis(2-chloroethoxy)methane	2.0
23V	1,1,2,2-tetrachloroethane	1.0	11B	bis(2-chloroethyl)ether	1.0
24V	tetrachloroethylene	1.0	12B	bis(2-chloroisopropyl)ether	1.0
25V	toluene	1.0	13B	bis(2-ethylhexyl)phthalate	1.0
26V	1,2-trans-dichloroethylene	1.0	14B	4-bromophenyl phenyl ether	1.0
27V	1,1,1-trichloroethane	1.0	15B	butylbenzyl phthalate	1.0
28V	1,1,2-trichloroethane	1.0	16B	2-chloronaphthalene	1.0
29V	trichloroethylene	1.0	17B	4-chlorophenyl phenyl ether	1.0
31V	vinyl chloride	1.0	18B	chrysene *	0.15
			19B	dibenzo (a,h)anthracene *	0.03
Acid Compounds - EPA Method 625		MDL ug/l (ppb)	20B	1,2-dichlorobenzene	1.0
1A	2-chlorophenol	1.0	21B	1,3-dichlorobenzene	1.0
2A	2,4-dichlorophenol	1.0	22B	1,4-dichlorobenzene	1.0
3A	2,4-dimethylphenol	1.0	23B	3,3' -dichlorobenzidine	2.0
4A	4,6-dinitro-o-cresol	1.0	24B	diethyl phthalate	1.0
5A	2,4-dinitrophenol	2.0	25B	dimethyl phthalate	1.0
6A	2-nitrophenol	1.0	26B	di-n-butyl phthalate	1.0
7A	4-nitrophenol	1.0	27B	2,4-dinitrotoluene	2.0
8A	p-chloro-m-cresol	2.0	28B	2,6-dinitrotoluene	2.0
9A	pentachlorophenol	1.0	29B	di-n-octyl phthalate	1.0
10A	phenol	1.0	30B	1,2-diphenylhydrazine	1.0
11A	2,4,6-trichlorophenol	1.0		(as azobenzene)	
Pesticides - EPA Method 608		MDL ug/l (ppb)	31B	fluoranthene *	1.0
1P	aldrin	0.059	32B	fluorene *	1.0
2P	alpha-BHC	0.058	33B	hexachlorobenzene	1.0
3P	beta-BHC	0.043	34B	hexachlorobutadiene 1.0	
4P	gamma-BHC	0.048	35B	hexachlorocyclopentadiene	2.0
5P	delta-BHC	0.034	36B	hexachloroethane	1.0
6P	chlordan	0.211	37B	indeno(1,2,3-cd)pyrene *	0.043
7P	4,4' -DDT	0.251	38B	isophorone	1.0
8P	4,4' -DDE	0.049	39B	naphthalene *	1.0
9P	4,4' -DDD	0.139	40B	nitrobenzene	1.0
10P	dieldrin	0.082	41B	N-nitrosodimethylamine	1.0
11P	alpha-endosulfan	0.031	42B	N-nitrosodi-n-propylamine	1.0
12P	beta-endosulfan	0.036	43B	N-nitrosodiphenylamine	1.0
13P	endosulfan sulfate	0.109	44B	phenanthrene *	1.0
14P	endrin	0.050	45B	pyrene *	1.0
15P	endrin aldehyde	0.062	46B	1,2,4-trichlorobenzene	1.0
16P	heptachlor	0.029			
17P	heptachlor epoxide	0.040			

OTHER TOXIC POLLUTANTS

	MDL ug/l (ppb)
Antimony, Total	3.0
Arsenic, Total	1.0
Beryllium, Total	0.2
Cadmium, Total	0.1
Chromium, Total	1.0
Chromium, Hexavalent***	20.0
Copper, Total	1.0
Lead, Total	1.0
Mercury, Total	0.2
Nickel, Total	1.0
Selenium, Total	2.0
Silver, Total	0.5
Thallium, Total	1.0
Zinc, Total	5.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total***	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0
Total Xylenes	0.5
Ethanol	2.0 mg/l

* Polynuclear Aromatic Hydrocarbons

** No Rhode Island Department of Environmental Management (RIDEM) MDL

*** Not a priority pollutant as designated in the 1997 Water Quality Regulations (Table 5)

NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs which are determined in reagent water may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

E. MONITORING AND REPORTING

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in Federal Regulations (40 CFR Part 136).

2. Reporting

Monitoring results obtained during the previous month shall be summarized and reported on Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed reporting period. A copy of the analytical laboratory report, specifying analytical methods used, shall be included with each report submission. The first report is due on _____. Signed copies of these, and all other reports required herein, shall be submitted to:

Office of Water Resources
RIPDES Program
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908-5767

STATEMENT OF BASIS

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO.

RI0001651

NAME AND ADDRESS OF APPLICANT:

Getty Terminals Corporation
1500 Hempstead Turnpike
East Meadow, NY 11554

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Getty Terminals Corporation
Dexter Road and Massasoit Avenue
East Providence, RI

RECEIVING WATER:

Ten Mile River

CLASSIFICATION:

B

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

The above named applicant has applied to the Rhode Island Department of Environmental Management (DEM) for reissuance of a RIPDES Permit to discharge into the designated receiving water. The applicant's discharges consist of storm water runoff and hydrostatic/hydraulic test water. The previous permit authorized the discharge of tank bottom draw-off water. However, the 2010 reapplication did not include tank bottom draw-off water. Therefore, this permit does not authorize the discharge of tank bottom draw-off water. The discharge is to the Ten Mile River.

II. Limitations and Conditions

The effluent limitations of the permit, the monitoring requirements and any implementation schedule (if required) may be found in the draft permit.

III. Description of Discharge

The Getty Terminals Corporation, which operates the facility, is classified under the Petroleum and Petroleum Products industry group as a Standard Industrial Classification (SIC) 5171 for Petroleum Bulk Stations and Terminals. These facilities are establishments primarily engaged in the wholesale distribution of crude petroleum and petroleum products from bulk liquid storage facilities. The

discharge is composed of storm water from the terminal site, parking lots, containment or diked area surrounding the storage tanks. A non-storm water discharge includes hydrostatic test water.

All storm water and hydrostatic test water is to be treated by an oil/water separator. A quantitative description of the discharge from Outfall 001 in terms of significant effluent parameters based on Discharge Monitoring Report Data for the past five (5) years is shown in Attachment A-1.

IV. **Permit Basis and Explanation of Effluent Limitation Derivation**

General Requirements

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to RIGL Chapter 46-12, as amended. DEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).

When developing effluent limits for RIPDES Permits DEM is required to consider treatment technology and water quality requirements. Technology based treatment requirements represent the minimum level of control that must be imposed under Section 402 and 301(b) of the CWA (see 40 CFR 125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT), Best Conventional Control Technology (BCT) for conventional pollutants, and Best Available Technology Economically Achievable (BAT) for toxic pollutants. EPA has not promulgated National Effluent Guidelines for storm water discharges from bulk storage petroleum facilities. In the absence of technology-based guidelines, DEM is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations, in accordance with Section 402(a)(1) of the CWA.

Under Section 301 (b)(1)(C) of the CWA, discharges are subject to effluent limitations based on water quality standards. The Rhode Island Water Quality Standards include a narrative statement that prohibits the discharge of any pollutant or combination of pollutants in quantities that would be toxic or injurious to aquatic life. In addition, the State has adopted EPA's numerical criteria for specific toxic pollutants and toxicity criteria as published in the EPA Quality Criteria for Water, 1986, (EPA 440/5-86-001) as amended.

The effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41 (j), 122.44 (i), and 122.48 to yield data representative of the discharge.

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits.

Description of the Facility and Discharge(s)

The Getty Terminals facility in East Providence located at Dexter Road and Massasoit Avenue is an inactive terminal. None of the bulk storage tanks at the terminal presently contain petroleum. The facility was previously operated as a petroleum bulk oil storage terminal since at least 1949, but was decommissioned in April 2003. The facility is ~7.15 acres in size and consists of: a tank farm surrounded by a common clay-lined dike; an office building with a basement located on the western portion of the property; a former truck repair garage located on the western portion of the property; a warehouse building located on the western portion of the property; a dispatch office with an attached shed; a foam house located on the southern portion of the property; inactive truck loading racks located on the southern portion of the property; railroad tracks with a former tank car loading rack located on the northern portion of the property; and a parking lot used for vehicle parking. The property is presently used by Getty as an office. Another tenant at the

property (Santa Fuel) maintains a small office and completes limited repairs on oil tanker trucks. Repair activities are generally limited to the repair of oil delivery hoses and general upkeep of vehicle fluids (e.g. antifreeze and washer fluids). Heavy truck maintenance is not performed. The tenant also periodically hires a truck washing firm who blocks the central storm drain and captures and disposes of all wastewater off-site. Discharges from these truck washing activities are not authorized by this permit. Inactive aboveground storage tanks (ASTs) include (5) 43,000 barrel (BBL) ASTs, (3) 30,000 BBL ASTs, (1) 20,000 BBL AST, (2) 24,000 BBL ASTs, and (1) 14,000 BBL AST. Prior to being decommissioned in 2003 the large volume tanks listed above contained gasoline, ethanol, diesel fuel, and heating oil. The facility currently stores small quantities of No. 2 Fuel Oil, motor oil, paint, rock salt, antifreeze, and windshield washer fluid, all of which are stored within the facility buildings. Other tanks present at the site include (1) 20,000 gallon ethanol/gasoline additive AST; (1) 2,000 gallon vapor recovery knock out tank (UST); (1) 3,000 gallon oil/water separator (UST); (1) 1,000 gallon truck drop tank (UST); and (3) 275 gallon heating oil ASTs. Of the other tanks only the 275 gallon ASTs are in use for storage of No. 2 Fuel Oil for use in heating the buildings.

Outfall 001 discharges storm water runoff from the tank farm's secondary containment area, which includes a gas additive tank; from the terminal yard area; and from the tank truck loading racks. An oil/water separator treats storm water drainage collected from the aforementioned areas. The tank farm is surrounded by a common dike wall/bermed area that has a clay lining to stop infiltration of collected site drainage. The tank farm area then drains through interconnected piping that leads to the separator. After being treated by the separator the collected water needs to be pumped out manually from a collection chamber/sump prior to discharge to the storm sewer system on Tallman Avenue, which ultimately discharges to the Ten Mile River. Infiltration/Inflow of contaminated groundwater into the storm water collection and treatment system is not authorized by this permit and must be addressed by the permittee pursuant to Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases. Discharges of storm water are regulated by the conditions in the permit for Outfall 001A. Outfall 001 is also permitted to discharge tank and pipe hydrostatic test water. Discharges from the tank farm and hydrostatic test water through Outfall 001 are regulated by the conditions in the permit for Outfall 001A. Attachment A-2 includes a site location map, a line flow diagram for Outfall 001A for estimated flow, and a site drainage plan identifying the location of ASTs, the oil/water separator, the truck loading rack, other structures, and storm water flow patterns.

Explanation of Effluent Limitation Derivation and Conditions

The draft RIDES permit for Getty Terminals Corporation, authorizing the discharge of treated storm water, includes numeric effluent limitations and requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for additional protection of the environment. The effluent parameters in the draft permit are discussed in more detail below following the effluent limitation derivation for the one Outfall being regulated by this permit.

Outfall 001A: Effluent limitations for Outfall 001A have been established for total suspended solids (TSS) and oil and grease. The effluent limitation for TSS is 20 mg/l for maximum daily. TSS has been limited to account for the potential for petroleum hydrocarbons to adsorb or absorb to particulates and be transported with the suspended material. The daily maximum effluent limitation of 15 mg/l for oil and grease is a BPJ based limit based on American Petroleum Institute (API) oil/water separator guidelines. The draft permit limit for O&G remains unchanged from the previous permit at 15 mg/l, daily maximum. Performance data from this terminal, from September 2005 through March 2010, indicate that these effluent limits can be achieved through the proper operation of a correctly sized oil/water separator, appropriate source controls, routine inspections, preventative maintenance, good housekeeping programs, and good best management practices (BMPs). The effluent limitations for pH are based on criteria established in the State's Water Quality Regulations for Freshwater Receiving Waters.

Outfall 001A must also be monitored for the following: benzene, toluene, ethylbenzene, total xylenes, MTBE, ethanol, and sixteen (16) polynuclear aromatic hydrocarbons (PAHs). These pollutants were chosen because they are indicators used to characterize contamination from petroleum hydrocarbons.

Based on above listed past performance data summarized in Attachment A-1, and the fact that the terminal has been inactive since April 2003 the monitoring frequencies have been changed to the following for the listed parameters: TSS, oil and grease, and pH has been changed to twice per month (one wet weather and one dry weather event); BTEX and ethanol has been changed to quarterly for a wet weather event; and PAHs has been changed to annually for a wet weather event. If the terminal becomes active in the future the DEM can increase the monitoring frequencies of these parameters in the form of a minor modification to the permit.

Ethanol is a fuel additive increasingly blended with gasoline as a gasoline oxygenate. Ethanol has replaced MTBE as an additive in Rhode Island. Ethanol is a clear, colorless liquid, miscible with water and many organic solvents. When the facility becomes active the storage/handling and use of ethanol as a fuel additive could lead to exposures from water that has been contaminated with ethanol from leaking storage facilities or accidental spills. Also, since a tenant at the site routinely maintains fuel tanker trucks there, drips and/or leaks of gasoline from the trucks onto paved areas may result in the potential of small quantities of ethanol entering the storm water drainage system and oil/water separator. Therefore, ethanol monitoring for Outfall 001A has been included in the permit. The requirement to monitor MTBE at Outfall 001A was added to the permit as a minimal amount of MTBE is expected to remain in the distribution system due to presence as a natural contaminant in some gasoline and use of non-dedicated transportation equipment that could have been used to transport product containing MTBE. On average, MTBE concentrations in gasoline are expected to be less than 0.5% MTBE by volume. Quarterly sampling for MTBE at Outfall 001A will be required. If the results of four (4) consecutive quarters of MTBE sampling demonstrate values below the method detection limits for MTBE (as defined in Part I.D.), then the permittee may request that monitoring may be ceased at Outfall 001A. However, until this request is approved by RI DEM, the permittee must continue monitoring for MTBE. As there are no water quality criteria or technology based limits for methyl tertiary butyl ether (MTBE) or ethanol they will be monitored only.

Flow: The treatment technology for storm water runoff employed by this bulk storage petroleum terminal is an oil/water separator. These devices use gravity to separate the lower density oils from water; resulting in an oil phase above the oil/water interface, and a heavier particulate (sludge) phase on the bottom of the oil/water separator. It follows that the sizing of oil/water 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 the installed oil/water separators such that the oil and/or particulate phases are not entrained to the waterway, DEM is requiring that the release of runoff from any diked area or holding basin shall be controlled so that this discharge alone or in combination with all other wastewaters does not exceed the optimum design flow rate for the oil/water separator or cause violations of the effluent limitations specified in the permit.

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, it partitions (dissolves) BTEXs and PAHs from the petroleum product. Through this process, the water selectively extracts some of these hazardous substances and may become toxic. To avoid product contamination, terminal operators drain this water layer to prevent transfer with the product. The previous permit authorized the discharge of treated tank bottom draw-off water. However, when reapplying for this permit, the permittee did not include this wastewater as one of the discharges. Therefore, this permit does not authorize the discharge of tank bottom draw-off water.

To protect the Ten Mile River from pollutants dissolved in tank bottom and bilge water, the DEM is prohibiting the permittee from discharging any tank bottom or bilge water alone or in combination with storm water or other wastewater from the facility. The facility is required by the permit to dispose of tank bottom water off-site by a licensed hazardous waste contractor.

Hydrostatic Test Water: To ensure safe working conditions during maintenance work periods; storage vessels (welding, new tank floors, e.g.) and/or pipe networks are rigorously cleaned (e.g. "poly brushed", "squeegee pigged") and certified as being "gas free". The vessels and/or pipe networks are then hydrostatically tested after the maintenance work is completed. Thus, hydrostatic test water discharge should contain only minimal amounts of foreign matter and/or trace amounts of hydrocarbons. As a precaution, however, the hydrostatic test water shall go through the oil/water separator (effluent) in a controlled manner to prevent exceedance of the maximum design flow rate of the separator thereby reducing any potential carryover of oil into the receiving waters.

The permittee shall notify the Office of Water Resources at least twenty-four (24) hours prior to the commencement of any proposed hydrostatic-test water discharges. Prior to testing, the interior of the tank(s) and/or piping being tested shall be cleaned and certified to be free of petroleum product. There shall be no discharge of tank and/or pipe cleaning residual/debris to either of the oil/water separators or holding ponds.

The hydrostatic test water released from the tank(s), after treatment through the oil/water separator, must satisfy all the effluent limitations and conditions of this permit. The surface of the oil/water separator should be routinely observed to determine if there is any detectable increase in the separated oil layer to prevent inadvertent hydrocarbon release to the receiving water(s). A logbook shall be kept to document the start and end of each hydrostatic test, the total flow discharged and all monitoring data.

Should any RIPDES permit discharge parameter be exceeded, the hydrostatic test water transfer shall be halted immediately followed by notification to the DEM of the exceedance.

SWPPP: Pursuant to Section 304(e) of the CWA and 40 CFR§125.103(b), best management practices (BMPs) 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. The 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 Ten Mile River. These operations include one or more of the following items from which there is or could be site runoff: materials storage, materials processing and handling, blending operations, intra-facility transfers, and loading/unloading of product. To control these activities/operations, which could contribute pollutants to waters of the United States via storm water discharges, at this facility; the permit requires this facility to develop a Storm Water Pollution Prevention Plan (SWPPP) containing BMPs appropriate for this specific facility. The BMPs should include processes, procedures, schedule of activities, prohibitions on practices, and other management practices that prevent or reduce the discharge of pollutants in storm water runoff.

Prohibition of Non-storm Water Discharges: This permit authorizes some non-storm water discharges. These discharges include treated effluent from firefighting activities; fire hydrant flushings; hydrostatic test water; lawn watering; uncontaminated groundwater; springs; air conditioning condensate; potable waterline flushings; foundation or footing drains where flows are not contaminated with process materials, such as solvents, or contaminated by contact with soils, where spills or leaks of toxic or hazardous materials have occurred; and potable water sources which include vehicle, equipment, and surface washdown waters which do not have chemicals (such as solvents, soaps, emulsifiers, and/or detergents) added. To prevent hydrocarbon and/or particulate entrainment (carry-over) from 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 the DEM.

All other 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. The DEM believes there is a significant potential for these types of discharges to be contaminated. Thus, the permittee is required to obtain a separate RIPDES permit for these non-storm water discharges or seek the necessary approval(s) from the appropriate local pretreatment authority to discharge to the sanitary sewer system.

Antibacksliding: EPA's antibacksliding provision at 40 CFR §122.44(l) prohibit the relaxation of permit limits, standards, and conditions unless the circumstances on which previous permit was based have materially and substantially changed since the time the permit was issued. Therefore, technology based effluent limitations in the draft permit must be as stringent as those in the current permit. Relaxation of these limits is only allowed when cause for permit modification is met, see 40 CFR §122.62. Effluent limits based on BPJ, water quality, and State Certification requirements must also meet the antibacksliding provisions found in Section 402(o) and 303(d)(4) of the CWA.

The circumstances at the facility have not substantially changed since the issuance of the last RIPDES permit, and therefore the limits in the draft permit are no less stringent than what are in the previous permit. Therefore, since all of the permit limits are at least as stringent as those from the previous permit, this permit satisfies the antibacksliding provisions at 40 CFR §122.44(l).

The RI DEM has determined that all permit limitations are consistent with the Rhode Island Antidegradation policy.

V. **Comment Period, Hearing Requests, and Procedures for Final Decisions**

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the Rhode Island Department of Environmental Management. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Director finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director 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 the final permit decision any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

VI. **DEM Contact**

Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays from:

Aaron Mello
RIPDES Program
Office of Water Resources
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-6820 Ext.7405

Date

Eric A. Beck, P.E.
Supervising Sanitary Engineer
RIPDES Permitting Section
Office of Water Resources
Department of Environmental Management

ATTACHMENT A-1

DESCRIPTION OF DISCHARGES: 001A – Effluent from Oil/Water Separator: Storm Water, Hydrostatic Test Water, Treated Tank Bottom Draw-off Water
100A – Effluent from Tank Bottom Draw-off Water Treatment System³

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE:

PARAMETER	AVERAGE¹	MAXIMUM²
FLOW (MGD)		<u>0.0476</u> MGD
Oil and Grease		<u><9.63</u> mg/l
TSS		<u><12.66</u> mg/l
pH	<u>6.94</u> S.U. (Minimum)	<u>7.45</u> S.U. (Maximum)
Benzene		<u><2.03</u> µg/l
Toluene		<u><3.57</u> µg/l
Ethylbenzene		<u><3.47</u> µg/l
Total Xylenes		<u><4.69</u> µg/l
MTBE		<u><3.57</u> µg/l
Acenaphthene		<u>BDL</u> µg/l
Acenaphthylene		<u>BDL</u> µg/l
Anthracene		<u>BDL</u> µg/l
Benzo (a) Anthracene		<u>BDL</u> µg/l
Benzo (a) Pyrene		<u>BDL</u> µg/l
Benzo (b) Fluoranthene		<u>BDL</u> µg/l
Benzo (ghi) Perylene		<u>BDL</u> µg/l
Benzo (k) Fluoranthene		<u>BDL</u> µg/l
Chrysene		<u>BDL</u> µg/l
Dibenzo (a,h) Anthracene		<u>BDL</u> µg/l
Fluoranthene		<u>BDL</u> µg/l
Fluorene		<u>BDL</u> µg/l
Indeno (1,2,3-cd) Pyrene		<u>BDL</u> µg/l
Naphthalene		<u>BDL</u> µg/l

ATTACHMENT A-1 (Cont.)

Phenanthrene	<u>BDL</u> µg/l
Pyrene	<u>BDL</u> µg/l
Sum of All (PAHs)	<u>BDL</u> µg/l

¹Data represents the mean of the monthly average data from September 2005 through March 2010.

²Data represents the mean of the daily maximum data from September 2005 through March 2010.

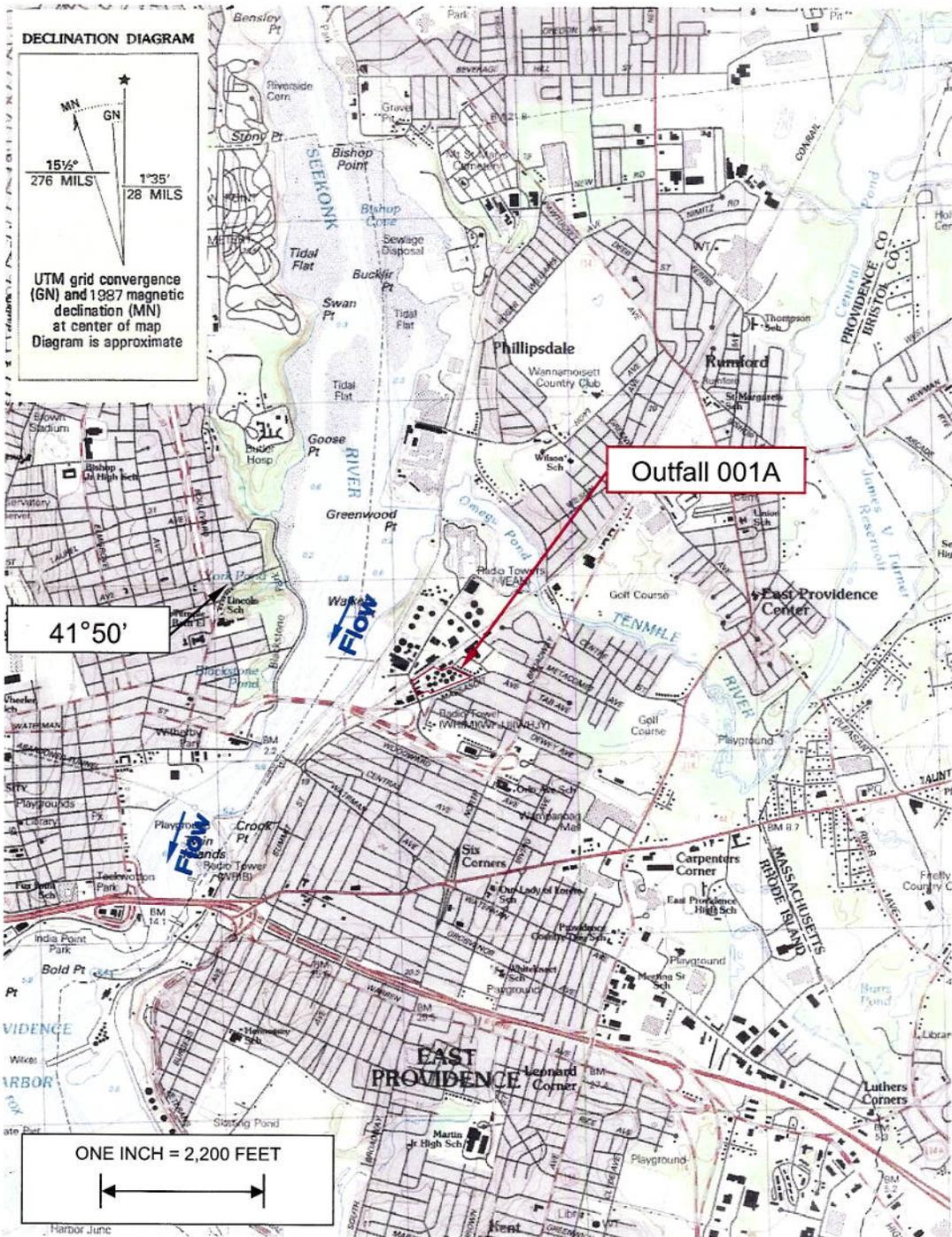
³There were no discharges from the tank bottom draw-off water treatment system (Outfall 100A) during the above timeframe.

BDL = Below Detection Limit

ATTACHMENT A-2

Getty Terminals Corporation – East Providence Terminal

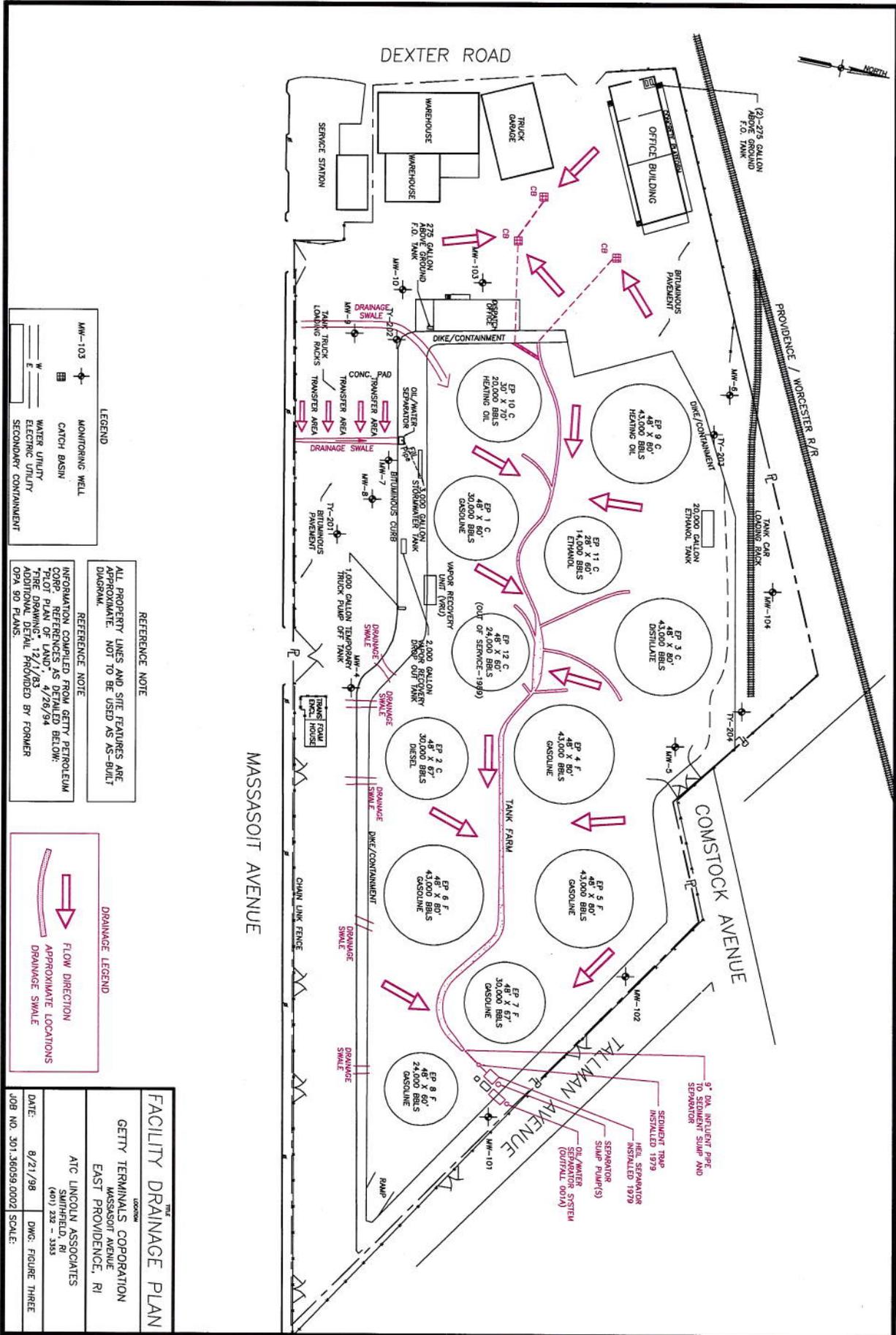
SITE LOCATION MAP, SITE DRAINAGE PLAN & LINE FLOW DIAGRAM



Site Map
 Getty Terminal Corporation
 Dexter Road and Massasoit Avenue
 East Providence, Rhode Island



Source
 1987 USGS 7.5 x 15 Minute
 Providence, RI Quadrangle Map



LEGEND

	MONITORING WELL
	CATCH BASIN
	WATER UTILITY
	ELECTRIC UTILITY
	SECONDARY CONTAINMENT

REFERENCE NOTE

ALL PROPERTY LINES AND SITE FEATURES ARE APPROXIMATE. NOT TO BE USED AS AS-BUILT DIAGRAM.

REFERENCE NOTE

INFORMATION COMPILED FROM GETTY PETROLEUM CORP. REFERENCES AS DETAILED BELOW:
 PLAT PLAN OF LAND, 4/26/94
 THE DRAWING 12/1/83
 ALL INFORMATION NOT PROVIDED BY FORMER OPA 90 PLANS.



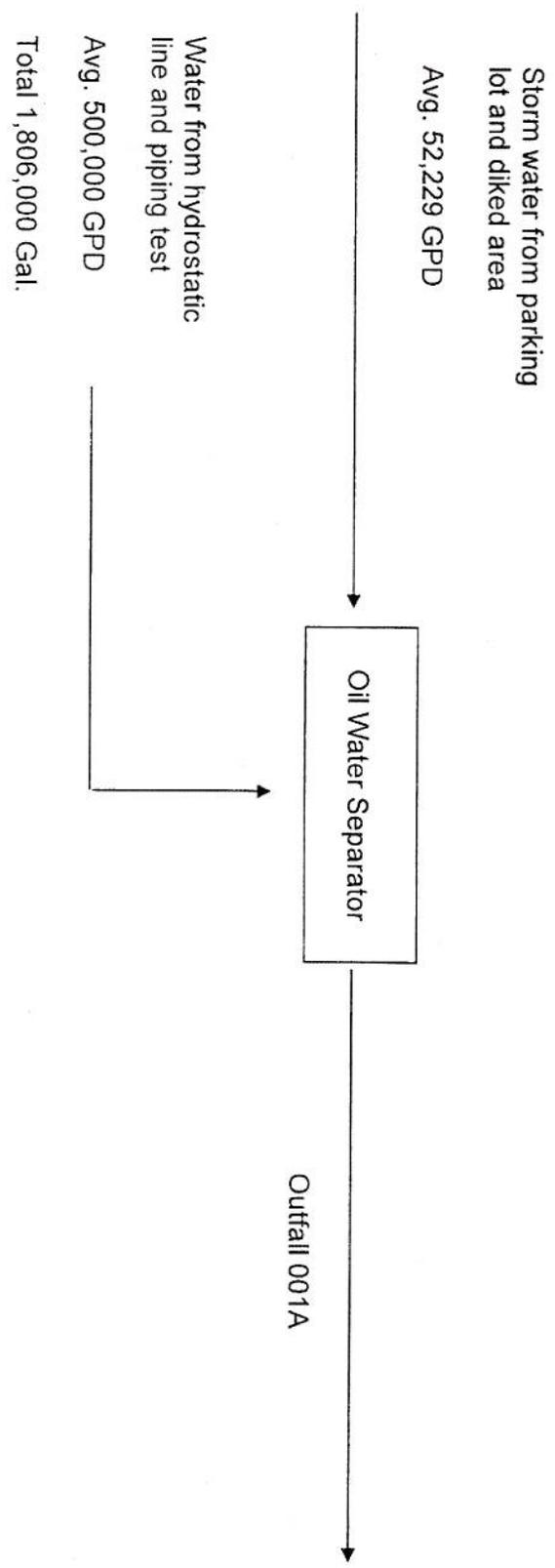
FACILITY DRAINAGE PLAN

GETTY TERMINALS CORPORATION
 MASSASOIT AVENUE
 EAST PROVIDENCE, RI

ATC LINCOLN ASSOCIATES
 SHUBERT - 3333
 (401) 232 - 3333

DATE: 8/21/98 DWG. FIGURE THREE
 JOB NO. 301.36059.0002 SCALE:

Figure 2 – Schematic line drawing showing estimated facility water flow



A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial numbers 001A and 002A. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>			<u>Monitoring Requirement</u>			
	Quantity - lbs./day		Concentration - specify units			Measurement	Sample
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>	<u>Frequency</u>	<u>Type</u>
Flow		--- MGD				Monthly	Estimate
Oil & Grease					15 mg/l	3/Month	Grab ¹
TSS					20 mg/l	3/Month	Grab ¹
Benzene					--- ug/l	1/Month	Grab ²
Toluene					--- ug/l	1/Month	Grab ²
Ethylbenzene					--- ug/l	1/Month	Grab ²
Total Xylenes					--- ug/l	1/Month	Grab ²
Methyl Tertiary Butyl Ether (MTBE)					--- ug/l	1/Month	Grab ^{2,3}
Ethanol					--- µg/l	1/Month	Grab ^{2,4}
Polynuclear Aromatic Hydrocarbons (PAHs)							
Acenaphthene					--- ug/l	Annually	Grab ²
Acenaphthylene					--- ug/l	Annually	Grab ²
Anthracene					--- ug/l	Annually	Grab ²
Benzo (a) anthracene					--- ug/l	Annually	Grab ²
Benzo (a) pyrene					--- ug/l	Annually	Grab ²
Benzo (b) fluoranthene					--- ug/l	Annually	Grab ²

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial numbers 001A and 002A. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs./day		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>		
Benzo (ghi) perylene					--- ug/l	Annually	Grab ²
Benzo (k) fluoranthene					--- ug/l	Annually	Grab ²
Chrysene					--- ug/l	Annually	Grab ²
Dibenzo (a,h) anthracene					--- ug/l	Annually	Grab ²
Fluoranthene					--- ug/l	Annually	Grab ²
Fluorene					--- ug/l	Annually	Grab ²
Indeno (1,2,3-cd) pyrene					--- ug/l	Annually	Grab ²
Naphthalene					--- ug/l	Annually	Grab ²
Phenanthrene					--- ug/l	Annually	Grab ²
Pyrene					--- ug/l	Annually	Grab ²
Sum of All PAHs					--- ug/l	Annually	Grab ²

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial numbers 001A and 002A. Such discharges shall be limited and monitored by the permittee as specified below:

--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

¹Two (2) samples shall be taken during wet weather and one (1) during dry weather. Wet weather samples must be collected during the first 30 minutes from discharges resulting from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event. If this is not feasible, wet weather samples may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

²One sample shall be taken during the first 30 minutes of discharge from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event; if this is not feasible, it may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

³Beginning on the effective date of the permit, the permittee shall perform monthly testing for MTBE on samples collected from discharge outfalls 001A/002A. If the results of six (6) consecutive months of MTBE sampling for each outfall demonstrate values below the method detection limit for MTBE (as defined in Part I.D.), then the permittee may cease the required monitoring at the respective outfall.

⁴Ethanol shall be analyzed using EPA method 1671.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: Outfall 001A (effluent from the oil/water separator treating storm water, groundwater, hydrostatic test water, and treated tank bottom draw-off water from the tank farm west of Allens Avenue) and 002A (effluent from the holding pond following treatment by an oil/water separator treating storm water from the loading rack area, additive tank containment area, and steel ring-wall containment for Tanks 2, 3, 5, 6, 7, and 8. Hydrostatic test water and a portion of the steel ring-wall containment for Tanks 2, 3, 5, 6, 7, and 8 are discharged directly to the holding pond.).

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning on the effective date of this permit and lasting through expiration, the permittee is authorized to discharge from outfall serial number 100A fuel tank bottom water after treatment and prior to mixing with any other flow. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs./day		Concentration - specify units			Measurement Frequency	Sample Type
	Average Monthly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily		
Flow	--- MGD	--- MGD				Continuous	Totalizer
Benzene			5.0 ug/l		5.0 ug/l	1/Discharge	Grab ¹
Toluene			12,000 ug/l		--- ug/l	1/Discharge	Grab ¹
Ethylbenzene			1,680 ug/l		--- ug/l	1/Discharge	Grab ¹
Total Xylenes			--- ug/l		--- ug/l	1/Discharge	Grab ¹
Total BTEX			100 ug/l		100 ug/l	1/Discharge	Grab ¹
MTBE			--- ug/l		70 ug/l	1/Discharge	Grab ¹
Ethanol			--- ug/l		--- ug/l	1/Discharge	Grab ¹
Polynuclear Aromatic Hydrocarbons (PAHs)							
Benzo (a) anthracene			0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Benzo (a) pyrene			0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Benzo (b) fluoranthene			0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Benzo (k) fluoranthene			0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Chrysene			0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Dibenzo (a,h) anthracene			0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹
Indeno (1,2,3-cd) pyrene			0.0038 ug/l ²		0.0038 ug/l ²	1/Discharge	Grab ¹

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning on the effective date of this permit and lasting through expiration, the permittee is authorized to discharge from outfall serial number 100A fuel tank bottom water after treatment and prior to mixing with any other flow. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs. per day		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>		
Acenaphthene			1.9 ug/l		1.9 ug/l	1/Discharge	Grab ¹
Acenaphthylene			---		---	1/Discharge	Grab ¹
Anthracene			32,000 ug/l		---	1/Discharge	Grab ¹
Benzo (ghi) perylene			---		---	1/Discharge	Grab ¹
Fluoranthene			112 ug/l		---	1/Discharge	Grab ¹
Fluorene			4,240 ug/l		---	1/Discharge	Grab ¹
Naphthalene			---		20 ug/l	1/Discharge	Grab ¹
Phenanthrene			---		---	1/Discharge	Grab ¹
Pyrene			3,200 ug/l		---	1/Discharge	Grab ¹
Sum of All PAHs			---		---	1/Discharge	Grab ¹
Total Petroleum Hydrocarbons (TPH)			---		1.0 mg/l	1/Discharge	Grab ¹

--- signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

¹Three (3) grab samples shall be taken at equally spaced time intervals over the duration of the discharge. These samples shall be composited prior to analysis.

²The limit at which compliance/noncompliance determinations will be based is the Quantitation Level (QL), which is defined as 0.05 ug/l for Benzo (a) Anthracene, 2 ug/l for Benzo (a) Pyrene, 0.1 ug/l for Benzo (b) Fluoranthene, 2 ug/l for Benzo (k) Fluoranthene, 5 ug/l for Chrysene, 0.1 ug/l for Dibenz (a,h) Anthracene, and 0.15 ug/l for Indeno (1,2,3-cd) Pyrene. These values may be reduced by permit modification as more sensitive test methods are approved by EPA and the state.

Samples taken in compliance with the monitoring requirements specified shall be taken at Outfall 100A (fuel tank bottom water after treatment but prior to mixing with any other flow).

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning on the effective date of this permit and lasting through expiration, the permittee is authorized to discharge from outfall serial number 003A. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>					<u>Monitoring Requirement</u>	
	Quantity - lbs. per day		Concentration - specify units			<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Average Monthly</u>	<u>Average Weekly</u>	<u>Maximum Daily</u>		
Flow		--- MGD				Semi-annually	Estimate
Oil & Grease					15 mg/l	Semi-annually	Grab ¹
TSS					20 mg/l	Semi-annually	Grab ¹

--- signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

¹Grab sample to be taken during first 30 minutes of discharge from a storm event that is greater than 0.1 inch of rainfall in a 24-hour period and at least 72 hours from the previously measurable (greater than 0.1 inch of rainfall in a 24-hour period) storm event; if this is not feasible, it may be taken within the first hour of discharge and noted on the Discharge Monitoring Report.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 003A (effluent from oil/water separator treating storm water from the paved parking area north of the maintenance garage).

4.
 - a. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 standard units at any time, unless these values are exceeded due to natural causes or as result of the approved treatment processes.
 - b. The discharge shall not cause visible discoloration of the receiving waters.
 - c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
 - d. In addition to the required sampling results submitted in accordance with Parts I.A.1. and I.A.3. of this permit, the permittee must provide the date and duration (hours) of the storm event sampled, the total depth of rainfall (inches), and the total volume of runoff (Ft³). This information must be submitted with the Discharge Monitoring Report forms at the frequency specified in Part I.E.2 of this permit.
 - e. If the permittee is unable to collect samples due to adverse climatic conditions which make the collections of samples dangerous or impractical, the permittee must submit, in lieu of sampling data, a description of why samples could not be collected, including available precipitation data for the monitoring period. The permittee can only exercise this waiver once in a two (2) year period for outfalls designated 001A, 002A, and 003A. A waiver is not required if there was no flow from the outfall for the reporting period. This information must be submitted with the Discharge Monitoring Report forms for the applicable reporting period.
 - f. The permittee shall not add chemicals (i.e., disinfecting agents, detergents, emulsifiers, etc.) or "bioremedial agents including microbes" to the collection and treatment system without prior approval from DEM.
 - g. The permittee shall not discharge any sludge and/or bottom deposits from any storage tank, basin and/or diked area to the receiving water. Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, stilling basins, the oil/water separator, observation basins with baffles, petroleum product storage tanks, baffled storage tanks collecting spills, and tank truck loading rack sumps.
5. There shall be no direct discharge to the oil/water separators or holding ponds of untreated marine transportation water (water which separates and/or accumulates during marine transportation), tank truck wash water or wash water from the truck loading rack, vehicle or equipment washing activities, and ship barge/bilge water.
6. This permit does not authorize discharges to the separate storm sewer system or to waters of the State from floor drains and trench drains located inside of buildings and/or hangars.
7. The discharge of contaminated groundwater, including contaminated groundwater from infiltration/inflow, into the storm water collection system or into any oil/water separator is prohibited and shall be addressed by the permittee pursuant to Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases ("Remediation Regulations") under the direction of the Office of Waste Management, in association with the Office of Water Resources. Nothing in this paragraph shall be construed to relieve the permittee's obligation to investigate and/or remediate contaminated groundwater in compliance with the Remediation Regulations or the regulations of the Office of Water Resources.

8. Unless identified by the permittee or the DEM as significant sources of pollutants to waters of the United States, the following non-storm water discharges are authorized under this permit to enter the storm water drainage system: discharges from fire fighting activities; fire hydrant flushings; external building washdown that do not use detergents; lawn watering; uncontaminated groundwater; springs; air conditioning condensate; potable waterline flushings; and foundation or footing drains where flows are not contaminated with process materials, such as solvents, or contaminated by contact with soils, where spills or leaks of toxic or hazardous materials has occurred. If any of these discharges may reasonably be expected to be present and to be mixed with storm water discharges, they must be specifically identified and addressed in the facility's Storm Water Pollution Prevention Plan (SWPPP) required in Part I.C.
9. There shall be no discharge of untreated tank bottom draw-off water (water which separates from product during storage and settles to the tank bottom). All tank bottom draw-off water shall be treated through the carbon absorption system detailed in Star Enterprise's September 19, 1997 submittal on the treatment of gasoline and fuel oil tank water bottoms. The flow through the two-vessel, 4000 lb. granular activated carbon system shall be measured via a digital flowmeter and totalizer. A logbook shall be kept to document the start and end of each discharge and the total flow discharged through the system. The following conditions apply to the carbon absorption system mentioned above:
 - a. The permittee shall properly operate and maintain the carbon absorption system. Mechanical failure or breakthrough of the treatment system (exceedance of any permit limits) shall be immediately reported to the Office of Water Resources.
 - b. The system shall not be modified without written approval from the Office of Water Resources.
 - c. The treatment system shall be inspected at a minimum of once per discharge to assure the system is operating efficiently and to look for evidence of iron bacteria build-up. As a result of these inspections, appropriate actions shall be taken immediately to resolve any problems discovered during the inspection (i.e., removal of iron scale). Records documenting the inspections and any actions taken shall be retained and made available to the Office of Water Resources upon request.
 - d. Discharge shall cease and DEM shall be notified if any of the limits listed in Part I.A.2. are exceeded. The discharge may recommence once steps have been taken to ensure the limits will not be exceeded again and after DEM approval. At a minimum, these steps shall include replacement of the activated carbon filter.
10. The permittee shall notify the Office of Water Resources at least twenty-four (24) hours prior to the commencement of any proposed hydrostatic-test water discharges. Prior to testing, the interior of the tank(s) and/or piping being tested shall be cleaned and certified to be free of petroleum product. There shall be no discharge of tank and/or pipe cleaning residual/debris to either of the oil/water separators or holding ponds. At a minimum, four (4) representative samples shall be taken of the hydrostatic-test water: one (1) grab sample of the influent and three (3) serial-grab samples of the effluent, which after treatment through the oil water separator is discharged to the receiving waters. 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 serial-grab sample shall be taken during the initial phase of the discharge; the second serial grab sample is to be taken midway through the discharge; and the final sample shall be taken at the end of the discharge. All effluent samples should be taken directly

from the effluent of the tank prior to discharge into the oil/water separator or holding pond and/or mixing with any other authorized waste streams. These samples should provide adequate characterization of the influent and effluent hydrostatic-test water.

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

- | | | | |
|----|------------------------------|----|--|
| a. | Total Suspended Solids (TSS) | d. | Chemical Oxygen Demand (COD) |
| b. | Oil & Grease (O/G) | e. | Dissolved Oxygen (DO) |
| c. | Total Iron | f. | pH |
| | | g. | Polynuclear Aromatic Hydrocarbons (PAHs) |

The hydrostatic test water released from the tank(s), after treatment through the oil/water separator, must satisfy all the effluent limitations and conditions of this permit. The surface of the oil/water separator should be routinely observed to determine if there is any detectable increase in the separated oil layer to prevent inadvertent hydrocarbon release to the receiving water(s). A logbook shall be kept to document the start and end of each hydrostatic test, the total flow discharged and all monitoring data.

Should any visual inspection or suspicious odor indicate the presence of petroleum while inspecting the oil/water separator as required above or if laboratory results from the representative samples of the discharge become available that may indicate an exceedance of the permit effluent limits, the transfer shall be halted immediately followed by notification to the RI DEM of the suspended discharge. After the discharge of the hydrostatic test water has been completed, the permittee shall submit a letter/report to the RI DEM within thirty (30) days, summarizing the results of the transfer. This report shall contain: the date(s) of hydrostatic test water transfer; the volume of hydrostatic test water transferred; and the analytically determined values of the discharge parameters.

11. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 ug/l);
 - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 ug/l);

- (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations.
- c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant which was not reported in the permit application.
12. This permit serves as the State's Water Quality Certificate for the discharges described herein.

B. OPERATION AND MAINTENANCE

1. All surface runoff from process or work areas at the facility shall be contained and diverted to the final treatment system. Final treatment shall consist of a permanent structural control as indicated in Attachment A-3 of the Statement of Basis. Process or work areas are defined for the purpose of this permit as all those areas subject to spills and leaks of raw materials or products containing toxic or hazardous substances, (i.e., diked areas, docks, loading or unloading areas, yard areas, etc.).
2. The release of runoff from any diked area or holding basin shall be controlled so that this discharge alone or in combination with all other wastewater's does not exceed the optimum design flow rates for the oil water separators or cause violations of the effluent limitations specified in this permit. The design flow rates for the oil/water separators servicing outfalls 001A, 002A and 003A are: 1.2 MGD, 0.23 MGD and 0.006 MGD, respectively.
3. Storm water accumulated in holding basins or tank dike areas shall be inspected to verify that it is free of product or sheen prior to draining to any other storm water handling system at the terminal. Tank dike areas shall be drained as necessary to provide adequate secondary containment in the event of a release from a tank. If a sheen is detected the area will be covered with oil absorbent blankets to collect petroleum product. After the sheen has been absorbed and the absorbent blankets have been removed, the draining process will begin. If the amount of petroleum product is such that professional clean-up action is required than all the liquid from that containment area shall be removed and disposed of properly off site.
4. The wastewater collection and treatment system shall be operated and maintained in order to provide optimal treatment of the wastewaters prior to discharge to the receiving water.
5. The SWPPP in Part I.C. shall specifically address the adequacy of containment of leaks and spills in storage areas (from Drums, Additive Tanks, Petroleum Product Tanks, etc.) and truck loading area(s). Adequate containment must exist at these locations so as to prevent untreated discharges from reaching any surface water.
6. A schedule for routinely inspecting and cleaning the oil/water separators for both sludge layer and oil layer shall be specified in the SWPPP. The permittee shall use the same inspection frequency for the holding ponds as is specified for the oil/water separators with cleaning being performed as necessary. In addition, the SWPPP shall identify procedures for insuring compliance with the permit during such cleaning or maintenance periods.

7. The permittee shall assure the proper management of solid and hazardous waste in accordance with regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1978 (40 U.S.C. 6901 et seq.), or amendments thereto.

C. STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. A Storm Water Pollution Prevention Plan (SWPPP) shall be maintained and implemented by the permittee. The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants, which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the SWPPP shall describe and ensure the implementation of Best Management Practices (BMPs) which are to be used to reduce or eliminate the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. This SWPPP shall be consistent with the EPA guidance entitled "Storm Water Management for Industrial Activities – Developing Pollution Prevention Plans and Best Management Practices", 1992 (EPA 832-R-92-006).
2. The SWPPP shall be signed by the permittee in accordance with RIPDES Rule 12 and retained on-site. The Plan shall be made available upon request by the DEM.
3. If the SWPPP is reviewed by the DEM the permittee may be notified at any time that the SWPPP does not meet one or more of the minimum requirements of this part. After such notification from the DEM, the permittee shall make changes to the SWPPP and shall submit a written certification that the requested changes have been made. Unless otherwise provided by the DEM, the permittee shall have thirty (30) days after such notification to make the necessary changes.
4. The permittee shall immediately amend the SWPPP whenever there is a change in design, construction, operation, or maintenance, which has a significant effect of the potential for the discharge of pollutants to the waters of the State; a release of reportable quantities of hazardous substances and oil; or if the SWPPP proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Changes must be noted and then submitted to DEM. Amendments to the SWPPP may be reviewed by DEM in the same manner as Part I.C.3. of this permit.
5. The SWPPP shall include, at a minimum, the following items:
 - a. Description of Potential Pollutant Sources. The SWPPP must provide a description of potential sources which may be reasonably expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. It must identify all activities and significant materials, which may potentially be significant pollutant sources. The plan shall include:
 - (1) A site map indicating: a delineation of the drainage area of each storm water outfall, each existing structural control measure to reduce pollutants in storm water runoff, locations where significant materials are exposed to storm water, locations where significant leaks or spills have occurred, a delineation of all impervious surfaces, all surface water bodies, all separate storm sewers, and the locations of the following activities where such areas are exposed to storm water: fueling stations, vehicle and equipment maintenance and/or cleaning areas, material handling areas, material storage areas, process areas, and waste disposal areas;

- (2) A topographic map extending one-quarter of a mile beyond the property boundaries of the facility;
- (3) An estimate of the overall runoff coefficient for the site, determined by an acceptable method, such as, but not limited to, area weighting;
- (4) A narrative description of significant materials that have been treated, stored, or disposed of in a manner to allow exposure to storm water between the time of three (3) years prior to the issuance of this permit to the present; method of on-site storage or disposal; materials management practices employed to minimize contact of these materials with storm water runoff between the time of three (3) years prior to the issuance of this permit and the present; materials loading and access areas; the location and description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and description of any treatment the storm water receives;
- (5) A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at the facility three (3) years prior to the effective date of this permit to the present;
- (6) A list of any pollutants limited in effluent guidelines to which a facility is subject under 40 CFR Subchapter N, any pollutants listed on a RIPDES permit to discharge process water, and any information required under RIPDES Rule 11.02(a)(14)(iii)-(v) or 40 CFR 122.21(g)(iii)-(v);
- (7) For each area of the facility that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an estimate of the types of pollutants, which are likely to be present in storm water associated with industrial activity;
- (8) A summary of existing sampling data describing pollutants in storm water discharges from the facility; and

b. Storm Water Management Controls. The permittee must develop a description of storm water management controls appropriate for the facility and implement such controls. The appropriateness for implementing controls listed in the SWPPP must reflect identified potential sources of pollutants at the facility. The description of storm water management controls must address the following minimum components, including a schedule for implementing such controls:

- (1) *Pollution Prevention Team.* The SWPPP must identify a specific individual(s) within the facility organization as members of a team that are responsible for developing the SWPPP and assisting the plant manager in its implementation, maintenance, and revision. The SWPPP must clearly identify the responsibilities of each team member. The activities and responsibilities of the team must address all aspects of facility's SWPPP.
- (2) *Risk Identification and Assessment/Material Inventory.* The SWPPP must assess the potential of various sources which contribute pollutants to storm water discharge associated with the industrial activity. The SWPPP must include an inventory of the types of materials handled. Each of the following must be evaluated for the reasonable potential for contributing pollutants to runoff: loading and unloading operations, outdoor manufacturing or processing activities, significant dust or particulate

generating processes, and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced, or discharged; the likelihood of contact with storm water, and the history of significant leaks or spills of toxic or hazardous pollutants.

- (3) *Preventative Maintenance.* A preventative maintenance program must involve inspection and maintenance of storm water management devices (i.e., oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdown or failures resulting in discharges of pollutants to surface waters.
- (4) *Good Housekeeping.* Good housekeeping requires the maintenance of a clean, orderly facility. If applicable, the following areas must be specifically addressed:
 - i. Vehicle and Equipment Storage Areas: The storage of vehicles and equipment with actual or potential fluid leaks must be confined to designated areas (delineated on the site map). The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from these areas. The facility shall consider the use of drip pans under vehicles and equipment, indoor storage of the vehicles and equipment, installation of berming and diking of this area, use of absorbents, roofing or covering storage areas, cleaning pavement surface to remove oil and grease, or other equivalent methods.
 - ii. Truck Loading Racks: The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from fuel loading areas. The facility shall consider berming the loading rack area(s), using spill and overflow protection and cleanup equipment, minimizing run-on/runoff of storm water to the loading rack area(s) by way of storm water drains, using dry cleanup methods, collecting the storm water runoff and providing treatment or recycling, or other equivalent measures.
 - iii. Material Storage Areas: Storage units of all materials (e.g., used oil, used oil filters, spent solvents, paint wastes, radiator fluids, transmission fluids, hydraulic fluids) must be maintained in good condition, so as to prevent contamination of storm water, and plainly labeled (e.g., "used oil", "spent solvents", etc.). The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from such storage areas. The facility shall consider indoor storage of the materials, installation of berming and diking of the area, minimizing run-on/runoff of storm water to the areas, using dry cleanup methods, collecting the storm water runoff and providing treatment, or other equivalent methods.
 - iv. Vehicle and Equipment Cleaning Areas: The SWPPP must describe measures that prevent the discharge of vehicle and equipment wash waters, including tank cleaning operations. The facility shall consider performing all cleaning operations indoors, covering the cleaning operation, ensuring that all washwaters drain to the intended collection system, collecting the storm water runoff from the cleaning area and providing treatment or recycling, or other equivalent measures. These discharges are

not authorized by this permit.

- v. Vehicle and Equipment Maintenance Areas: The SWPPP must describe measures that prevent or minimize contamination of the storm water runoff from all areas used for vehicle and equipment maintenance. The facility shall consider performing all maintenance activities indoors, using drip pans, maintaining an organized inventory of materials used in the shop, draining all parts of fluids prior to disposal, prohibiting wet cleanup practices where the practices would result in the discharge of pollutants to storm water drainage systems, using dry cleanup methods, collecting the storm water runoff from the maintenance area and providing treatment or recycling, minimizing runoff/runoff of storm water areas or other equivalent measures.
- (5) *Spill Prevention and Response Procedure*. Areas where potential spills can occur, and their accompanying drainage points, must be identified clearly in the SWPPP. The potential for spills to enter the storm water drainage system must be eliminated wherever feasible. Where appropriate, specific material handling procedures, storage requirements, and procedures for cleaning up spills must be identified in the SWPPP and made available to the appropriate personnel. The necessary equipment to implement a clean up must also be made available to personnel. The permittee shall immediately notify the office of releases in excess of reportable quantities.
- (6) *Storm Water Management*. The SWPPP must contain a narrative consideration of the appropriateness of traditional storm water management practices. Based on an assessment of the potential of various sources at the plant to contribute pollutants to storm water discharges associated with industrial activity (see Part C.5.b.2 of this permit), the SWPPP must provide that measures, determined to be reasonable and appropriate, must be implemented and maintained.
- (7) *Sediment and Erosion Prevention*. The SWPPP must identify areas which; due to topography, activities, or other factors; have a high potential for significant soil erosion and identify measures to limit erosion.
- (8) *Employee Training*. Employee training programs must inform personnel responsible for implementing activities identified in the SWPPP, or otherwise responsible for storm water management at all levels, of the components and goals of the SWPPP. Training should address topics such as spill response, good housekeeping, and material management practices. The SWPPP must identify periodic dates for such training.
- (9) *Disposal Procedures*. The disposal procedures for tank bottom waters, tank bottom sludge, oil/water separator sediments, oil/water separator oils, oil absorbent cleaning material(s) and any washdown waters containing detergents, dispersants, emulsifiers, etc. must be documented in the SWPPP.
- (10) *Visual Inspections*. Qualified plant personnel must be identified to inspect designated equipment and plant areas. Material handling areas must be inspected for evidence of, or the potential for, pollutants entering the drainage system. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. Records of inspections must be maintained on site for at least

five (5) years.

(11) *Recordkeeping and Internal Reporting Procedures.* Incidents such as spills, or other discharges, along with other information describing the quality and quantity of storm water discharges must be included in the records. All inspections and maintenance activities must be documented and maintained on site for at least five (5) years.

- c. Site Inspection. An annual site inspection must be conducted by appropriate personnel named in the SWPPP to verify that the description of potential pollutant sources required under Part I.C.5.a is accurate, that the drainage map has been updated or otherwise modified to reflect current conditions, and controls to reduce pollutants in storm water discharges associated with industrial activity identified in the SWPPP are being implemented and are adequate. The following areas shall be included in all inspections: storage areas for vehicles and equipment awaiting maintenance, truck loading rack area(s), vehicle and equipment maintenance areas (both indoors and outdoors), material storage areas, vehicle and equipment cleaning areas, and loading and unloading areas. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. A copy of the annual site inspection report and records documenting significant observations made during the site inspection must be retained as part of the SWPPP for a minimum of five (5) years.
- d. Consistency with Other Plans. Storm water management controls may reflect requirements for Spill Prevention Control and Counter-measure (SPCC) plans under Section 311 of the CWA or Best Management Practices (BMP) Programs otherwise required by a RIPDES permit and may incorporate any part of such plans into the SWPPP by reference.

D. DETECTION LIMITS

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits listed below (the EPA method is noted for reference, other EPA approved methods found in 40 CFR Part 136 may be utilized). All sludge testing required by this permit shall be in conformance with the method detection limits found in 40 CFR 503.8. In accordance with 40 CFR Part 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the RIPDES program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020).

The report entitled "Methods for the Determination of Metals in Environmental Samples" includes a test which must be performed in order to determine if matrix interferences are present, and a series of tests to enable reporting of sample results when interferences are identified. Each step of the series of tests becomes increasingly complex, concluding with the complete Method of Standard Additions analysis. The analysis need not continue once a result which meets the applicable quality control requirements has been obtained. Documentation of all steps conducted to identify and account for matrix interferences shall be submitted along with the monitoring reports.

If, after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be submitted along with the monitoring report. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR Part 136, Appendix B.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", less than the reagent water MDL, or less than an effluent or sludge specific MDL. The effluent or sludge specific MDL must be calculated using the methods outlined in 40 CFR Part 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;
2. results reported as less than the MDL shall be included as values equal to the MDL, and the average shall be reported as "less than" the calculated value.

For compliance purposes, DEM will replace all data reported as less than the MDL with zeroes, provided that DEM determines that all appropriate EPA approved methods were followed. If the re-calculated average exceeds the permit limitation it will be considered a violation.

LIST OF TOXIC POLLUTANTS

The following list of toxic pollutants has been designated pursuant to Section 307(a)(1) of the Clean Water Act. The Method Detection Limits (MDLs) represent the required Rhode Island MDLs.

Volatiles - EPA Method 624		MDL ug/l (ppb)	Pesticides - EPA Method 608		MDL ug/l (ppb)
1V	acrolein	10.0	18P	PCB-1242	0.289
2V	acrylonitrile	5.0	19P	PCB-1254	0.298
3V	benzene	1.0	20P	PCB-1221	0.723
5V	bromoform	1.0	21P	PCB-1232	0.387
6V	carbon tetrachloride	1.0	22P	PCB-1248	0.283
7V	chlorobenzene	1.0	23P	PCB-1260	0.222
8V	chlorodibromomethane	1.0	24P	PCB-1016	0.494
9V	chloroethane	1.0	25P	toxaphene	1.670
10V	2-chloroethylvinyl ether	5.0			
11V	chloroform	1.0			
12V	dichlorobromomethane	1.0			
14V	1,1-dichloroethane	1.0			
15V	1,2-dichloroethane	1.0			
16V	1,1-dichloroethylene	1.0			
17V	1,2-dichloropropane	1.0			
18V	1,3-dichloropropylene	1.0			
19V	ethylbenzene	1.0			
20V	methyl bromide	1.0			
21V	methyl chloride	1.0			
22V	methylene chloride	1.0			
23V	1,1,2,2-tetrachloroethane	1.0			
24V	tetrachloroethylene	1.0			
25V	toluene	1.0			
26V	1,2-trans-dichloroethylene	1.0			
27V	1,1,1-trichloroethane	1.0			
28V	1,1,2-trichloroethane	1.0			
29V	trichloroethylene	1.0			
31V	vinyl chloride	1.0			
Acid Compounds - EPA Method 625		MDL ug/l (ppb)	Base/Neutral - EPA Method 625		MDL ug/l (ppb)
1A	2-chlorophenol	1.0	1B	acenaphthene *	1.0
2A	2,4-dichlorophenol	1.0	2B	acenaphthylene *	1.0
3A	2,4-dimethylphenol	1.0	3B	anthracene *	1.0
4A	4,6-dinitro-o-cresol	1.0	4B	benzidine	4.0
5A	2,4-dinitrophenol	2.0	5B	benzo(a)anthracene *	0.013
6A	2-nitrophenol	1.0	6B	benzo(a)pyrene *	0.023
7A	4-nitrophenol	1.0	7B	3,4-benzofluoranthene *	0.018
8A	p-chloro-m-cresol	2.0	8B	benzo(ghi)perylene *	2.0
9A	pentachlorophenol	1.0	9B	benzo(k)fluoranthene *	0.017
10A	phenol	1.0	10B	bis(2-chloroethoxy)methane	2.0
11A	2,4,6-trichlorophenol	1.0	11B	bis(2-chloroethyl)ether	1.0
			12B	bis(2-chloroisopropyl)ether	1.0
			13B	bis(2-ethylhexyl)phthalate	1.0
			14B	4-bromophenyl phenyl ether	1.0
			15B	butylbenzyl phthalate	1.0
			16B	2-chloronaphthalene	1.0
			17B	4-chlorophenyl phenyl ether	1.0
			18B	chrysene *	0.15
			19B	dibenzo (a,h) anthracene *	0.03
			20B	1,2-dichlorobenzene	1.0
			21B	1,3-dichlorobenzene	1.0
			22B	1,4-dichlorobenzene	1.0
			23B	3,3' -dichlorobenzidine	2.0
			24B	diethyl phthalate	1.0
			25B	dimethyl phthalate	1.0
			26B	di-n-butyl phthalate	1.0
			27B	2,4-dinitrotoluene	2.0
			28B	2,6-dinitrotoluene	2.0
			29B	di-n-octyl phthalate	1.0
			30B	1,2-diphenylhydrazine (as azobenzene)	1.0
			31B	fluoranthene *	1.0
			32B	fluorene *	1.0
			33B	hexachlorobenzene	1.0
			34B	hexachlorobutadiene	1.0
			35B	hexachlorocyclopentadiene	2.0
			36B	hexachloroethane	1.0
			37B	indeno (1,2,3-cd) pyrene *	0.043
			38B	isophorone	1.0
			39B	naphthalene *	1.0
			40B	nitrobenzene	1.0
			41B	N-nitrosodimethylamine	1.0
			42B	N-nitrosodi-n-propylamine	1.0
			43B	N-nitrosodiphenylamine	1.0
			44B	phenanthrene *	1.0
			45B	pyrene *	1.0
			46B	1,2,4-trichlorobenzene	1.0
Pesticides - EPA Method 608		MDL ug/l (ppb)			
1P	aldrin	0.059			
2P	alpha-BHC	0.058			
3P	beta-BHC	0.043			
4P	gamma-BHC	0.048			
5P	delta-BHC	0.034			
6P	chlordan	0.211			
7P	4,4' -DDT	0.251			
8P	4,4' -DDE	0.049			
9P	4,4' -DDD	0.139			
10P	dieldrin	0.082			
11P	alpha-endosulfan	0.031			
12P	beta-endosulfan	0.036			
13P	endosulfan sulfate	0.109			
14P	endrin	0.050			
15P	endrin aldehyde	0.062			
16P	heptachlor	0.029			
17P	heptachlor epoxide	0.040			

OTHER TOXIC POLLUTANTS

	MDL ug/l (ppb)
Antimony, Total	3.0
Arsenic, Total	1.0
Beryllium, Total	0.2
Cadmium, Total	0.1
Chromium, Total	1.0
Chromium, Hexavalent***	20.0
Copper, Total	1.0
Lead, Total	1.0
Mercury, Total	0.2
Nickel, Total	1.0
Selenium, Total	2.0
Silver, Total	0.5
Thallium, Total	1.0
Zinc, Total	5.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total***	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0
Total Xylenes	0.5
Ethanol	2.0 mg/l

* Polynuclear Aromatic Hydrocarbons

** No Rhode Island Department of Environmental Management (RIDEM) MDL

*** Not a priority pollutant as designated in the 1997 Water Quality Regulations (Table 5)

NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs which are determined in reagent water may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

E. MONITORING AND REPORTING

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in Federal Regulations (40 CFR Part 136).

2. Reporting

Monitoring results obtained during the previous month shall be summarized and reported on Discharge Monitoring Report (DMR) Forms, postmarked no later than the 15th day of the month following the completed reporting period. A copy of the analytical laboratory report, specifying analytical methods used, shall be included with each report submission. The first report is due on _____. Signed copies of these, and all other reports required herein, shall be submitted to:

Electronic Computer Operator
Office of Water Resources
RIPDES Program
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908-5767

STATEMENT OF BASIS

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO.

RI0001481

NAME AND ADDRESS OF APPLICANT:

Motiva Enterprises LLC
100 Louisiana Street
Houston, TX 77002

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Motiva Enterprises LLC
Providence Terminal
520 Allens Avenue
Providence, RI 02905

RECEIVING WATER:

Providence River

CLASSIFICATION:

SB1{a}

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

The above named applicant has applied to the Rhode Island Department of Environmental Management for reissuance of a RIPDES Permit to discharge into the designated receiving water. The applicant's discharges consists of storm water runoff, groundwater, holding pond drainage, hydrostatic/hydraulic test water, and treated tank bottom draw-off water. The discharge is to the Providence River.

II. Limitations and Conditions

The effluent limitations of the permit, the monitoring requirements and any implementation schedule (if required) may be found in the draft permit.

III. Description of Discharge

Motiva Enterprises LLC, which operates the facility, is classified under the Petroleum and Petroleum Products industry group as a Standard Industrial Classification (SIC) 5171 for Petroleum Bulk Stations and Terminals. These facilities are establishments primarily engaged in the wholesale distribution of crude petroleum and petroleum products from bulk liquid storage facilities. The

discharge is composed of storm water from the terminal site, parking lots, and containment or diked areas surrounding the storage tanks. Other non-storm water discharges include hydrostatic test water and treated tank bottom draw-off water (water that separates from the product during storage and settles to the bottom of the tanks). All storm water and hydrostatic test water is to be treated by an oil/water separator and all tank draw-off water is to be treated through the carbon adsorption system prior to discharge. A quantitative description of the discharges from the three outfalls in terms of significant effluent parameters based on Discharge Monitoring Report Data for the past five (5) years is shown in Attachment A-1.

IV. **Permit Basis and Explanation of Effluent Limitation Derivation**

General Requirements

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to RIGL Chapter 46-12, as amended. DEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).

When developing effluent limits for RIPDES Permits DEM is required to consider treatment technology and water quality requirements. Technology based treatment requirements represent the minimum level of control that must be imposed under Section 402 and 301(b) of the CWA (see 40 CFR 125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT), Best Conventional Control Technology (BCT) for conventional pollutants, and Best Available Technology Economically Achievable (BAT) for toxic pollutants. EPA has not promulgated National Effluent Guidelines for storm water and groundwater discharges from bulk storage petroleum facilities. In the absence of technology based guidelines, DEM is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations, in accordance with Section 402(a)(1) of the CWA.

Under Section 301 (b)(1)(C) of the CWA, discharges are subject to effluent limitations based on water quality standards. The Rhode Island Water Quality Standards include a narrative statement that prohibits the discharge of any pollutant or combination of pollutants in quantities that would be toxic or injurious to aquatic life. In addition, the State has adopted EPA's numerical criteria for specific toxic pollutants and toxicity criteria as published in the EPA Quality Criteria for Water, 1986, (EPA 440/5-86-001) as amended.

The effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41 (j), 122.44 (i), and 122.48 to yield data representative of the discharge.

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits.

Description of the Facility and Discharge(s)

Motiva Enterprises LLC operates the Providence Terminal located at 520 Allens Avenue, Providence, RI. There are twenty-five (25) refined petroleum product storage tanks at the site. Six (6) of these tanks are located east of Allens Avenue in the East Side Tank Farm and the remaining nineteen (19) are located west of Allens Avenue. Since the last permit reissuance, Motiva has eliminated MTBE as a gasoline additive and replaced it with ethanol. Six aboveground storage tanks (ASTs) have been converted for ethanol storage and a railcar yard was constructed to allow receipt of ethanol. All of the aboveground storage tanks for petroleum products are located within a tank dike area or have ring-wall containment. Drainage valves for

the diked areas are kept closed and locked. Tank dike areas or ring-wall containment are drained at storms end and only after first determining that the drain water is free of product or sheen. If a sheen is detected the area will be covered with oil absorbent blankets to collect petroleum product. After the sheen has been absorbed and the absorbent blankets have been removed, the draining process will begin. If the amount of petroleum product is such that professional clean-up action is required than all the liquid from that containment area shall be removed and disposed of properly off-site.

As noted above, the Providence Terminal incorporated changes to begin handling, storing, and distributing ethanol and to increase the capabilities for storing and distributing gasoline. The terminal will process both neat ethanol (100%) and fuel ethanol (denatured with up to 5% gasoline by weight), and will receive and process off-spec gasoline, gasoline blending stock, and dimate (hexane) and blend these materials to produce saleable gasoline.

The ethanol railcar unloading facility consists of two parallel sidings, each with ten adjacent railcar unloading positions for a total of twenty unloading positions. Measures in place at the ethanol railcar unloading facility are as follows:

- Permanent steel drip pans between the rails and centered under the bottom unloading valve of each railcar with drainage to a collection sump;
- Secondary containment around the unloading area that includes an underlying impervious liner;
- Off loading pumps located on a concrete pad with curbing that allows inspection of storm water before release to the drainage system;
- Inspection of the collection sump, rail containment area, and off loading pump pad for any accumulated product or impacted storm water following unloading events;
- Collection and off-site treatment or disposal of impacted storm water;
- Un-impacted storm water will be drained to the dike area of Tank 7488, which will eventually flow to the storm water retention pond and oil/water separator for discharge through Outfall 001A.

The West Side Tank Farm is used to store #2 fuel oil, ethanol, and various grades of gasoline. Outfall 001A discharges storm water and groundwater from the tank farm and railcar yard west of Allen's Avenue. Groundwater infiltration from the high water table was included in a request for permit modification in July 1998. Storm water and groundwater that accumulates in the tank farm and railcar yard is collected through a series of drainage swales, pipes and pumps and is directed to a collection/retention pond in the tank farm. The tank farm drainage water is then pumped east under Allens Avenue through an 8" pipeline to an oil/water separator. Storm water and groundwater are treated in the oil/water separator prior to discharge to the Providence River through Outfall 001A. The Outfall 001 drainage area was increased by approximately 1.7 acres of impervious area due to the new railcar yard constructed in 2007. As a result, the quantity of storm water handled by the holding pond and oil/water separator that discharges to Outfall 001A increased slightly. Infiltration/Inflow of contaminated groundwater into the storm water collection and treatment system is not authorized by this permit and must be addressed by the permittee pursuant to Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases. Outfall 001A is also permitted to discharge tank and pipe hydrostatic test water. Discharges from the tank farm and hydrostatic test water through Outfall 001A are regulated by the conditions in the permit for Outfall 001A. Outfall 001A is also permitted to discharge treated tank bottom water that is regulated by the permit conditions for Outfall 100A.

The East Side Tank Farm is used to store fuel oil, jet fuel, and diesel. Outfall 002A discharges storm water from the loading rack area, additive tank containment area, and steel ring-wall containment for Tanks 2, 3, 5, 6, 7, and 8 in the East Side Tank Farm. Storm water from the loading rack and additive tank containment areas is collected through a series of drains and pipes and directed to an oil/water separator. Treated water from the oil/water separator is discharged to a holding pond northeast of the loading rack. Storm water from the steel dike ring-wall containment areas for Tanks 2, 3, 5, 6, 7, and 8 is also pumped to the pond. The pond is

used as an observation area and final treatment prior to discharging the storm water to the Providence River through Outfall 002A, which is located near Harbor Junction Pier. Outfall 002A is also permitted to discharge tank and pipe hydrostatic test water. Discharges through Outfall 002A are regulated by the conditions in the permit for Outfall 002A.

Outfall 003A discharges storm water from the paved parking area north of the maintenance garage (designated for empty fuel trucks). Based on a portion of a site map provided by the Narragansett Bay Commission (NBC), the parking area is graded to direct storm water to a catch basin. Storm water collected in the catch basin flows by underground piping to oil/water separator 003. Treated water from the oil/water separator is discharged to a city storm drain that discharges to the Providence River. Discharges through Outfall 003A are regulated by the conditions in the permit for Outfall 003A.

Process water, including vehicle washwater/rinsewater and garage floor washwater north of the maintenance garage, is discharged to the NBC sewer system. This discharge is permitted and regulated by NBC Permit #P3702-033-0831. Vehicle wash water travels by sheet flow to an oil/water separator. Garage floor wash water is conveyed to the oil/water separator by floor drains and piping. The garage is currently used for storage and minimal discharges would be expected. Treated wastewater from the oil/water separator is discharged to the NBC sewer system on Allens Avenue and is regulated by the conditions in the above-referenced NBC permit.

Attachment A-2 includes site location map and site plan identifying the location of ASTs, the holding ponds and oil/water separators, and other structures. Attachment A-3 includes drainage and line flow diagrams for Outfalls 001A, 002A, and 003A for estimated flow.

Explanation of Effluent Limitation Derivation and Conditions

The draft RIDES permit for Motiva Enterprises LLC, authorizing the discharge of treated storm water, includes numeric effluent limitations and requires the implementation of a Storm Water Pollution Prevention Plan (SWPPP) for additional protection of the environment. The effluent parameters in the draft permit are discussed in more detail below following the effluent limitation derivation for all four Outfalls being regulated by this permit.

Outfalls 001A, 002A, and 003A: Effluent limitations for Outfalls 001A, 002A, and 003A have been established for total suspended solids (TSS) and oil and grease. The daily maximum effluent limitation of 20 mg/l for TSS is a BPJ based limit based on the ability of bulk petroleum storage terminals to comply with this numeric limit utilizing proper BMPs and using oil/water separators and/or holding/equalization basins as the storm water treatment technology. TSS has been limited to account for the potential for petroleum hydrocarbons to adsorb or absorb to particulates and be transported with the suspended material. To address past exceedences of permitted TSS limits, fabric filter systems were installed in September and October 2006 to control outfall discharge TSS levels. The filter systems were in place on a temporary, indefinite basis while Motiva investigated the exceedences. The filters were removed in 2008 and have not been reinstalled. The daily maximum effluent limitation of 15 mg/l for oil and grease is a BPJ based limit based on American Petroleum Institute (API) oil/water separator guidelines. The draft permit limit for O&G remains unchanged at 15 mg/l, daily maximum. Performance data from this terminal for the period April 2005 through December 2009 indicate that these effluent limits can be achieved through the proper operation of a correctly sized oil/water separator, appropriate source controls, routine inspections, preventative maintenance, good housekeeping programs, and good best management practices (BMPs).

Ethanol is a fuel additive increasingly blended with gasoline as a gasoline oxygenate. Ethanol has replaced MTBE as an additive in Rhode Island. Ethanol is a clear, colorless liquid, miscible with water and many organic solvents. The storage/handling and use of ethanol as a fuel additive could lead to exposures from water that has been contaminated with ethanol from leaking storage facilities or accidental spills. Therefore, ethanol monitoring for Outfall 001A and 002A has

been included in the permit since ethanol is stored in the West Side Tank Farm and is loaded into tanker trucks at the truck loading rack, so storm water that is discharged through the above outfalls may contain ethanol. The requirement to monitor MTBE at Outfalls 001A and 002A was added to the permit as a minimal amount of MTBE is expected to remain in the distribution system due to presence as a natural contaminant in some gasoline and use of non-dedicated transportation equipment that could have been used to transport product containing MTBE. On average, MTBE concentrations in gasoline are expected to be less than 0.5% MTBE by volume. Monthly sampling for MTBE at Outfalls 001A and 002A will be required. If the results of six (6) consecutive months of MTBE sampling demonstrate values below the method detection limits for MTBE (as defined in Part I.D.), then monitoring may be ceased at the respective outfall.

Outfalls 001A and 002A must also be monitored for the following: benzene, toluene, ethylbenzene, total xylenes, MTBE, ethanol, and sixteen (16) polynuclear aromatic hydrocarbons (PAHs). These pollutants were chosen because they are indicators used to characterize contamination from petroleum hydrocarbons stored at the site.

Outfall 100A: Effluent limitations for Outfall 100A were established for benzene, toluene, ethylbenzene, total xylenes, total BTEX, MTBE, ethanol, TPH, and sixteen polynuclear aromatic hydrocarbons (PAHs) to monitor the effectiveness of the tank bottom draw-off water carbon adsorption system submitted by Star Enterprises on September 19, 1997. The design of the carbon system was based on a typical analysis of tank water bottoms (gasoline and fuel oil) obtained from API Publication 4602.

The effluent discharge limitations for Outfall 100A were based on those for Discharge Category B for Oil Remediation Sites discharging to Class SA or SB receiving waters as shown in Part II.D.6. of the RIPDES Remediation General Permit (RGP). For the parameters that require monitoring, only benzene, toluene, ethylbenzene, Total BTEX, benzo (a) anthracene, benzo (a) pyrene, benzo (b) fluoranthene, benzo (k) fluoranthene, chrysene, dibenzo (a,h) anthracene, indeno (1,2,3 – cd) pyrene, acenaphthene, anthracene, fluoranthene, fluorene, naphthalene, pyrene, and Total Petroleum Hydrocarbons (TPH) contain numeric effluent limitations. The remainder of the parameters are monitor only. As there are no water quality criteria or technology based limits for methyl tertiary butyl ether (MTBE) or ethanol they will be monitored only. Ethanol monitoring for Outfall 100A has been included in the permit since ethanol is the new additive in gasoline and tank bottom draw-off water from those ASTs storing gasoline is expected to contain trace amounts of ethanol. As noted above, MTBE monitoring will remain as it is expected to be present in trace amounts in gasoline.

Flow: The treatment technology for storm water runoff employed by this bulk storage petroleum terminal are oil/water separators. These devices use gravity to separate the lower density oils from water; resulting in an oil phase above the oil/water interface, and a heavier particulate (sludge) phase on the bottom of the oil/water separator. It follows that the sizing of oil/water 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 the installed oil/water separators such that the oil and/or particulate phases are not entrained to the waterway, DEM is requiring that the release of runoff from any diked area or holding basin shall be controlled so that this discharge alone or in combination with all other wastewaters does not exceed the optimum design flow rates for the oil/water separators or cause violations of the effluent limitations specified in the permit. The design flow rates for the oil/water separators servicing Outfalls 001A, 002A, and 003A are: 1.2 MGD, 0.23 MGD, and 0.006 MGD, respectively.

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, it partitions (dissolves) BTEXs and PAHs from the petroleum product. Through this process, the water selectively extracts some of these hazardous substances and

may become toxic. To avoid product contamination, terminal operators drain this water layer to prevent transfer with the product.

Whereas storm water contacts only those hydrocarbons spilled on the ground and then only for short periods of time; tank bottom water remains in intimate proximity with petroleum derivatives for prolonged periods of time, allowing the pollutants the necessary contact time to dissolve into the aqueous phase. Storm water also is discharged from the terminal in a timely fashion to maintain maximum storage capacity within the diked areas at all times. This procedure also minimizes the contact time between petroleum product and storm water.

The DEM considers tank bottom water a "process wastewater", since it can partition soluble toxic materials from petroleum product with time. To protect the Providence River from pollutants dissolved in tank bottom and bilge water, the DEM is prohibiting the permittee from discharging any untreated tank bottom or bilge water alone or in combination with storm water or other wastewater directly from the facility. However, treated tank bottom water is permitted to be discharged through Outfall 001A by the effluent limitations and monitoring requirement for internal Outfall 100A.

Hydrostatic Test Water: To ensure safe working conditions during maintenance work periods; storage vessels (welding, new tank floors, e.g.) and/or pipe networks are rigorously cleaned (e.g. "poly brushed", "squeegee pigged") and certified as being "gas free". The vessels and/or pipe networks are then hydrostatically tested after the maintenance work is completed. Thus, hydrostatic test water discharge should contain only minimal amounts of foreign matter and/or trace amounts of hydrocarbons. As a precaution, however, the hydrostatic test water shall go through the oil/water separator (effluent) in a controlled manner to prevent exceedance of the maximum design flow rate of the separator thereby reducing any potential carryover of oil into the receiving waters.

The permittee shall notify the Office of Water Resources at least twenty-four (24) hours prior to the commencement of any proposed hydrostatic-test water discharges. Prior to testing, the interior of the tank(s) and/or piping being tested shall be cleaned and certified to be free of petroleum product. There shall be no discharge of tank and/or pipe cleaning residual/debris to either of the oil/water separators or holding ponds.

The hydrostatic test water released from the tank(s), after treatment through the oil/water separator, must satisfy all the effluent limitations and conditions of this permit. The surface of the oil/water separator should be routinely observed to determine if there is any detectable increase in the separated oil layer to prevent inadvertent hydrocarbon release to the receiving water(s). A logbook shall be kept to document the start and end of each hydrostatic test, the total flow discharged and all monitoring data.

Should any RIPDES permit discharge parameter be exceeded, the hydrostatic test water transfer shall be halted immediately followed by notification to the DEM of the exceedance.

SWPPP: Pursuant to Section 304(e) of the CWA and 40 CFR§125.103(b), best management practices (BMPs) 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. The 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 Providence River. These operations include one or more of the following items from which there is or could be site runoff: materials storage, materials processing and handling, blending operations, intra-facility transfers, and loading/unloading of product. To control these activities/operations, which could contribute pollutants to waters of the United States via storm water discharges, at this facility; the permit requires this facility to develop a Storm Water Pollution Prevention Plan (SWPPP) containing BMPs appropriate for this specific facility. The BMPs should include processes, procedures, schedule of activities, prohibitions on

practices, and other management practices that prevent or reduce the discharge of pollutants in storm water runoff.

Prohibition of Non-storm Water Discharges: This permit authorizes some non-storm water discharges. These discharges include treated effluent from firefighting activities; fire hydrant flushings; hydrostatic test water; lawn watering; uncontaminated groundwater; springs; air conditioning condensate; potable waterline flushings; foundation or footing drains where flows are not contaminated with process materials, such as solvents, or contaminated by contact with soils, where spills or leaks of toxic or hazardous materials have occurred; and potable water sources which include vehicle, equipment, and surface washdown waters which do not have chemicals (such as solvents, soaps, emulsifiers, and/or detergents) added. To prevent hydrocarbon and/or particulate entrainment (carry-over) from 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 the DEM.

All other 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. The DEM believes there is a significant potential for these types of discharges to be contaminated. Thus, the permittee is required to obtain a separate RIPDES permit for these non-storm water discharges or seek the necessary approval(s) from the appropriate local pretreatment authority to discharge to the sanitary sewer system.

Antibacksliding: EPA's antibacksliding provision at 40 CFR §122.44(l) prohibit the relaxation of permit limits, standards, and conditions unless the circumstances on which previous permit was based have materially and substantially changed since the time the permit was issued. Therefore, technology based effluent limitations in the draft permit must be as stringent as those in the current permit. Relaxation of these limits is only allowed when cause for permit modification is met, see 40 CFR §122.62. Effluent limits based on BPJ, water quality, and State Certification requirements must also meet the antibacksliding provisions found in Section 402(o) and 303(d)(4) of the CWA.

The circumstances at the facility have not substantially changed since the issuance of the last RIPDES permit, and therefore the limits in the draft permit are no less stringent than what are in the previous permit. Therefore, since all of the permit limits are at least as stringent as those from the previous permit, this permit satisfies the antibacksliding provisions at 40 CFR §122.44(l).

The RI DEM has determined that all permit limitations are consistent with the Rhode Island Antidegradation policy.

V. **Comment Period, Hearing Requests, and Procedures for Final Decisions**

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the Rhode Island Department of Environmental Management. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Director finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director 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 the final permit decision any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of Rule 49 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

VI. **DEM Contact**

Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays from:

Aaron Mello
RIPDES Program
Office of Water Resources
Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700 x7405

Date

Eric A. Beck, P.E.
Supervising Sanitary Engineer
RIPDES Permitting Section
Office of Water Resources
Department of Environmental Management

ATTACHMENT A-1

DESCRIPTION OF DISCHARGES: 001A – Effluent from Oil/Water Separator: Storm Water, Groundwater Infiltration/Inflow, Hydrostatic Test Water, Treated Tank Bottom Draw-off Water
 002A – Effluent from Holding Pond: Storm Water, Hydrostatic Test Water
 003A -- Effluent from Oil/Water Separator: Storm Water
 100A – Effluent from Tank Bottom Draw-off Water Treatment System²

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE:

PARAMETER	OUTFALL		
	001A MAXIMUM ¹	002A MAXIMUM ¹	003A MAXIMUM ¹
FLOW (MGD)	<u>0.19</u> MGD	<u>0.0163</u> MGD	<u>0.003</u> MGD
Oil and Grease	<u><1.04</u> mg/l	<u><1.034</u> mg/l	<u><1</u> mg/l
TSS	<u><8.30</u> mg/l	<u><8.59</u> mg/l	<u><11.78</u> mg/l
Benzene	<u><10.38</u> µg/l	<u><16.73</u> µg/l	
Toluene	<u><28.3</u> µg/l	<u><45.54</u> µg/l	
Ethylbenzene	<u><7.79</u> µg/l	<u><8.08</u> µg/l	
Total Xylenes	<u><43.47</u> µg/l	<u><40.98</u> µg/l	
MTBE	<u><903.2</u> µg/l	<u><801.6</u> µg/l	
Acenaphthene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Acenaphthylene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Anthracene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Benzo (a) Anthracene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Benzo (a) Pyrene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Benzo (b) Fluoranthene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Benzo (ghi) Perylene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Benzo (k) Fluoranthene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Chrysene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Dibenzo (a,h) Anthracene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Fluoranthene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	
Fluorene	<u>BDL</u> µg/l	<u>BDL</u> µg/l	

ATTACHMENT A-1 (Cont.)

Indeno (1,2,3-cd) Pyrene	<u>BDL</u> µg/l	<u>BDL</u> µg/l
Naphthalene	<u>BDL</u> µg/l	<u>BDL</u> µg/l
Phenanthrene	<u>BDL</u> µg/l	<u>BDL</u> µg/l
Pyrene	<u>BDL</u> µg/l	<u>BDL</u> µg/l
Sum of All (PAHs)	<u>BDL</u> µg/l	<u>BDL</u> µg/l

¹Data represents the mean of the daily maximum data from April 2005 through December 2009.

²There were no discharges from the tank bottom draw-off water treatment system (Outfall 100A) during the above timeframe.

BDL = Below Detection Limit

ATTACHMENT A-2

Motiva Enterprises LLC – Providence Terminal

SITE LOCATION MAP & SITE DRAINAGE PLAN

ATTACHMENT A-3

Motiva Enterprises LLC – Providence Terminal

DRAINAGE & LINE FLOW DIAGRAMS