January 13, 2009

CERTIFIED MAIL

Mr. Robert Cerio, Energy Manager The Hudson Companies Corporate Headquarters 89 Ship Street Providence, RI 02903

RE: New England Petroleum Terminal, LLC - Northern Terminal Final Permit

RIPDES Application No. RI0023817

Dear Mr. Cerio:

Enclosed is your final Rhode Island Pollutant Discharge Elimination System (RIPDES) Permit issued pursuant to the referenced application. State regulations, promulgated under Chapter 46-12 of the Rhode Island General Laws of 1956, as amended, require this permit to become effective on the date specified in the permit.

Also enclosed is information relative to hearing requests and stays of RIPDES Permits.

We appreciate your cooperation throughout the development of this permit. Should you have any questions concerning this permit, feel free to contact Aaron Mello of the State Permits Staff at (401) 222-4700, extension 7405.

Sincerely,

Eric A. Beck, P.E.

Supervising Sanitary Engineer

EAB:am

Enclosures

cc: David Turin, EPA Region 1

Jeffrey Willis, CRMC

Annie McFarland, DEM/OWR Jeff Crawford, DEM/OWM



RESPONSE TO COMMENTS

NO SIGNIFICANT COMMENTS WERE RECEIVED ON THE DRAFT PERMIT FOR THIS FACILITY; THEREFORE, NO RESPONSE WAS PREPARED.

HEARING REQUESTS

If you wish to contest any of the provisions of this permit, you may request a formal hearing within thirty (30) days of receipt of this letter. The request should be submitted to the Administrative Adjudication Division at the following address:

Bonnie Stewart, Clerk
Department of Environmental Management
Office of Administrative Adjudication
235 Promenade Street, 3rd Floor
Providence, Rhode Island 02908

Any request for a formal hearing must conform to the requirements of Rule 49 of the State Regulations.

STAYS OF RIPDES PERMITS

Should the Department receive and grant a request for a formal hearing, the contested conditions of the permit will not automatically be stayed. However, the permittee, in accordance with Rule 50, may request a temporary stay for the duration of adjudicatory hearing proceedings. Requests for stays of permit conditions should be submitted to the Office of Water Resources at the following address:

Angelo S. Liberti, P.E. Chief of Surface Water Protection Office of Water Resources 235 Promenade Street Providence, Rhode Island 02908

All uncontested conditions of the permit will be effective and enforceable in accordance with the provisions of Rule 49.

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,

New England Petroleum Terminal, LLC 89 Ship Street Providence, RI 02903

is authorized to discharge from a facility located at

New England Petroleum Terminal, LLC
Northern Terminal
35 Terminal Road
Providence, RI 02905

to receiving waters named

Providence River

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

This permit shall become effective on February 1, 2009.

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

This permit consists of 15 pages in Part I including effluent limitations, monitoring requirements, etc. and 10 pages in Part II including General Conditions.

Signed this 13th day of January 2009.

Angelo S. Liberti, P.E., Chief of Surface Water Protection

Office of Water Resources

Rhode Island Department of Environmental Management

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

Such discharges shall be limited and monitored by the permittee as specified below:	nited and monitor	ed by the permitte	e as specified belo	W.			
Effluent Characteristic	Disc	Discharge Limitations		Oncentration - coedify unite	şļic	Monitoring Requirement	rement
Vialatelistic	Average Monthly	Maximum Daily	Average Monthly.	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow	MGD	0.864 MGD	(TITRITININA)	(AVEI AUE)	(INIGALITATION)	Continuous	Recorder
Oil & Grease			√mg/l		15 mg/l	2/Month	Grab
TSS					20 mg/l	2/Month	Grab
Hd			(6.5 S.U.)		(8.5 S.U.)	2/Month	Grab
Polynuclear Aromatic Hydrocarbons (PAHs)	s (PAHs)						
Acenaphthene					//sn	Quarterly	Grab
Acenaphthylene					//bn	Quarterly	Grab
Anthracene					//sn	Quarterly	Grab
Benzo (a) anthracene					//sn	Quarterly	Grab
Benzo (a) pyrene					∥m	Quarterly	Grab
Benzo (b) fluoranthene					//sn	Quarterly	Grab
Benzo (ghi) perylene					//bn	Quarterly	Grab
Benzo (k) fluoranthene					//bn	Quarterly	Grab
Chrysene					//sn	Quarterly	Grab
Dibenzo (a,h) anthracene					//bn	Quarterly	Grab

Permit No. RI0023817 Page 3 of 15

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

Effluent	Ouspite	Discharge Limitations		stinu viioens - noiteatuoono)	şici	Monitoring Requirement	irement
	Average Monthly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
					l/gn	Quarterly	Grab
					∥gn	Quarterly	Grab
Indeno (1,2,3-cd) pyrene					∥6n	Quarterly	Grab
					∥⁄sn	Quarterly	Grab
					∥gn	Quarterly	Grab
					∥gn	Quarterly	Grab
					/6n	Quarterly	Grab

⁻⁻⁻ 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/Maximum for the reporting period rather than Average Monthly/Maximum Daily.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001 (the sampling manhole located immediately downstream from the above ground oil/water separator).

- a. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 standard units.
 - 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 events 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 for the outfall designated as 001. 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 at the frequency specified in Part I.E.2 of this permit.
- The permittee shall not add chemicals (including but not limited to disinfecting agents, detergents, emulsifiers, and "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. This permit does not authorize the discharge of sanitary waste water to waters of the State.
- 10. 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.
- 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 have 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.

- There shall be no discharge of tank bottom draw-off water (water which separates from 12. product during storage and settles to the tank bottom) to waters of the State.
- The permittee shall notify the Office of Water Resources at least twenty-four (24) hours 13. 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 prior to entering the tank and three (3) serial-grab samples of the effluent from the tank. 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 wastestreams. 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:

Chemical Oxygen Demand (COD) Total Suspended Solids (TSS) d. a.

Dissolved Oxygen (DO) Oil & Grease (O/G) e. b.

Total Iron f. pH C.

> Polynuclear Aromatic Hydrocarbons q.

(PAHs)

Please be advised that 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 as required in Part I.A.1 of the permit. The surface of the oil/water separator should be routinely observed during hydrostatic test water discharges 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 on site at all times 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.

- 14. 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":
 - 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":
 - 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.
- This permit does not authorize the storage of gasoline products.
- This permit serves as the State's Water Quality Certificate for the discharges described herein.

B. OPERATION AND MAINTENANCE

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.).

- The release of runoff from any diked area or holding basin shall be controlled so that this discharge alone or in combination with any other sources of wastewater does not exceed the optimum design flow rate for the oil water separator or cause violations of the effluent limitations specified in this permit. The design flow rate for the oil/water separator servicing Outfall 001 is 0.864 MGD.
- 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.
- A schedule for routinely monitoring and cleaning the oil/water separator for both sludge and oil layers shall be specified in the SWPPP. In addition, the SWPPP shall identify procedures for insuring compliance with the permit during any cleaning or maintenance periods.
- 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).
- The SWPPP shall be signed by the permittee in accordance with RIPDES Rule 12 and retained on-site. The SWPPP 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.

- The SWPPP shall include, at a minimum, the following items:
 - a. <u>Description of Potential Pollutant Sources</u>. 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. 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. <u>Storm Water Management Controls.</u> 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. <u>Vehicle and Equipment Storage Areas</u>: 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 runon/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 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 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. <u>Site Inspection.</u> 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. <u>Consistency with Other Plans.</u> 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). 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 specific MDL. The effluent 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):

- "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;
- 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 recalculated 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)	Pesticide	es - 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
20	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/Ne	utral - 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 *	2.0
	18V	1,3-dichloropropylene	1.0	6B	benzo(a)pyrene *	2.0
	19V	ethylbenzene	1.0	7B	3,4-benzofluoranthene *	1.0
	20V	methyl bromide	1.0	8B	benzo(ghi)perylene *	2.0
	20V 21V	methyl chloride	1.0	9B	benzo(k)fluoranthene *	2.0
	21V 22V	methylene chloride	1.0	10B	bis(2-chloroethoxy)methane	2.0
				11B	bis(2-chloroethyl)ether	1.0
	23V	1,1,2,2-tetrachloroethane	1.0		그 아마아를 하다 맛이다고 하는데 하다 하다 때문에 가득하다 하다 하다 하다 하다.	1.0
	24V	tetrachloroethylene	1.0	12B	bis(2-chloroisopropyl)ether	
	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 *	1.0
			66	19B	dibenzo (a,h)anthracene *	2.0
		npounds - 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)	
				31B	fluoranthene *	1.0
	Pesticide	s - EPA Method 608	MDL ug/l (ppb)	32B	fluorene *	1.0
	1P	aldrin	0.059	33B	hexachlorobenzene	1.0
	2P	alpha-BHC	0.058	34B	hexachlorobutadiene	1.0
	3P	beta-BHC	0.043	35B	hexachlorocyclopentadiene	2.0
	4P	gamma-BHC	0.048	36B	hexachloroethane	1.0
	5P	delta-BHC	0.034	37B	indeno(1,2,3-cd)pyrene *	2.0
	6P	chlordane	0.211	38B	isophorone	1.0
	7P	4,4 ' -DDT	0.251	39B	naphthalene *	1.0
	8P	4,4 ' -DDE	0.049	40B	nitrobenzene	1.0
				41B	N-nitrosodimethylamine	1.0
	9P	4,4 ' -DDD	0.139	42B	N-nitrosodi-n-propylamine	1.0
	10P	dieldrin	0.082	42B 43B	N-nitrosodiphenylamine	1.0
	11P	alpha-endosulfan	0.031	43B 44B	phenanthrene *	1.0
	12P	beta-endosulfan	0.036	44B 45B	pyrene *	1.0
	13P	endosulfan sulfate	0.109		1,2,4-trichlorobenzene	1.0
	14P	endrin	0.050	46B	1,2,4-thorroberizerie	1.0
	15P	endrin aldehyde	0.062			
	16P	heptachlor	0.029			
	17P	heptachlor epoxide	0.040			
		10				

OTHER TOXIC POLLUTANTS

MDL ug/l (ppb)

Antimony, Total 5.0 - EPA Method 200.9 Arsenic, Total 5.0 - EPA Method 206.9

Beryllium, Total 0.2 - Standard Methods 18th Ed. 3113B

Cadmium, Total 1.0 - EPA Method 200.9

Chromium, Total 5.0 - Standard Methods 18th Ed. 3113B Chromium, Hexavalent*** 20.0 - Standard Methods 16th Ed., 312.B

 Copper, Total
 20.0 - EPA Method 200.7

 Lead, Total
 3.0 - EPA Method 200.9

 Mercury, Total
 0.5 - EPA Method 245.1

 Nickel, Total
 10.0 - EPA Method 200.7

 Selenium, Total
 5.0 - EPA Method 200.9

Silver, Total 1.0 - Standard Methods 18th Ed. 3113B

 Thallium, Total
 5.0 - EPA Method 200.9

 Zinc, Total
 20.0 - EPA Method 200.7

 Asbestos
 **

 Cyanide, Total
 10.0 - EPA Method 335.4

 Phenols, Total***
 50.0 - EPA Method 420.2

TCDD **

MTBE (Methyl Tert Butyl Ether) 1.0 - EPA Method 524.2

* Polynuclear Aromatic Hydrocarbons

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

NOTE:

All MDLs have been established in accordance with the definition of "Detection Limits" in the RIDEM Water Quality Regulations for Water Pollution Control. Unless otherwise noted the MDLs have been determined in reagent water by the Rhode Island Department of Health, Division of Laboratories. 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).

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

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 March 15, 2009. 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

Statement of Basis Permit No. RI0023817 Page 1 of 8

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.

RI0023817

NAME AND ADDRESS OF APPLICANT:

New England Petroleum Terminal, LLC 89 Ship Street Providence, RI 02903

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

New England Petroleum Terminal, LLC
Northern Terminal
35 Terminal Road
Providence, RI 02905

RECEIVING WATER:

Providence River

CLASSIFICATION:

SB1{a}

Proposed Action, Type of Facility, and Discharge Location

The above named applicant has applied to the Rhode Island Department of Environmental Management (DEM) for issuance of a RIPDES Permit to discharge into the designated receiving water. The applicant's discharges consist of storm water runoff and hydrostatic test water. The discharge is to the Providence River.

II. Limitations and Conditions

The effluent limitations and monitoring requirements may be found in the draft permit.

III. Description of Discharge

New England Petroleum Terminal, LLC, a subsidiary of The Hudson Companies will operate the facility located at 35 Terminal Road in Providence, RI. The New England Petroleum Terminal LLC, Northern Terminal is classified under the Petroleum and Petroleum Products industry group as a Standard Industrial Classification (SIC) 5171 for Petroleum Bulk Stations and Terminals. Facilities classified under SIC 5171 are primarily engaged in the wholesale distribution of crude petroleum and petroleum products from bulk liquid storage facilities. The facility is located in the

Port of Providence on a site owned by Prov Port formerly leased by the Sun Oil Company (Sunoco). The site has been inactive since the late 1990s. The New England Petroluem Terminal, LLC, Northern Terminal will store, handle, and distribute liquid asphalt and No. 6 Fuel Oil products to wholesale customers. Product will be brought in by tanker or barge and will be shipped out by tanker trucks or barge. The petroleum products are transferred from the storage tanks to tanker trucks at the loading racks located on the adjacent Hudson Liquid Asphalt site. This permit does not authorize the storage of gasoline at this facility. The proposed discharge will be composed of storm water from the secondary containment area and hydrostatic test water. Other non-storm water discharges may 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 wash down waters that do not have chemicals (such as solvents, soaps, emulsifiers, and/or detergents) added. All discharges will be treated by an oil/water separator prior to discharge.

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

New England Petroleum Terminal, LLC, a subsidiary of The Hudson Companies, is the operator of the New England Petroleum Terminal, LLC - Northern Terminal located at 35 Terminal Road, Providence, Rhode Island. The New England Petroleum Terminal facility is located in the Port of Providence at the former Sunoco Terminal and has historically been used as a petroleum storage and distribution facility. The site, which is approximately 5.25 acres in size, is bordered to the north by the Hudson Company's liquid asphalt storage/distribution facility, to the east by ProvPort Berth No. 3, to the south by Terminal Road, and to the west by the Univar Company facility. The site was formerly about 70% developed with nine (9) storage tanks and associated piping, but was cleared and redeveloped to include five (5) new storage tanks with an improved earthen berm surrounding the tanks at a consistent elevation of 24.0 NGVD. The berm will provide secondary containment in the event of an accidental release of petroleum products. The surface area of the site was cleared of the existing crushed stone and grass to allow for the placement of an impervious secondary containment liner system, which will prevent an accidental release of petroleum products from reaching subsurface soil and groundwater. Also, a new storm water drainage system was constructed within the storage area to provide for a controlled release of collected storm water runoff. The main point of access and egress is an existing gate located on Terminal Road. A new gate will be constructed to the westerly property line with access from Terminal Road to the St. Lawrence Cement site. The existing travel path will be upgraded and realigned as an access road with a crushed stone surface coarse that will cross over the berm and allow for vehicle movement within the site for maintenance and inspection purposes. A chain link security fence encloses the remainder of the facility.

The New England Petroleum Terminal – Northern Terminal facility is a wholesale petroleum (liquid asphalt and No. 6 heating oil) storage and distribution facility. Product will be brought into the site by tanker or barge and will be shipped out via tanker trucks or barge via the dock or loading racks located on the adjacent Hudson Liquid Asphalt site, respectively. Tanks 2, 3, and 4 will store liquid asphalt and Tanks 1 and 5 will store No. 6 Fuel Oil. The site is not authorized to store gasoline under this permit. Attachment A includes a site location map and drainage plan that identifies the location of ASTs and other structures, the Oil/Water Separator, and Outfall 001.

Existing Environmental Management Plans: The New England Petroleum Terminal facility has an SPCC plan in accordance with 40 CFR 112 that establishes procedures, equipment, and other requirements to prevent the discharge of oil from the facility onto the ground or into waters of the United States. A Facility Response Plan (FRP) will be developed for the facility according to the guidelines contained in 40 CFR Part 112 Appendix F, 33 CFR Subpart F, and 33 CFR Part 155. The FRP identifies individuals and organizations to be contacted in the event of an emergency; describes procedures, methods, and equipment that will be used by the facility personnel in the event of an emergency; and protects the community and the environment from harm due to a release of oil into navigable waters or adjoining shorelines.

Aboveground Storage Tanks (ASTs): The facility formerly had nine (9) existing storage tanks constructed of welded or riveted carbon steel. Five (5) newly constructed ASTs have replaced the above nine storage tanks at the site. Tanks 1 and 5 will store No. 6 Fuel Oil and Tanks 2, 3, and 4 will store liquid asphalt. The tanks and piping are constructed of steel according to API Standard No. 650. All the tanks have been hydrostatically tested prior to storing any petroleum products.

The ASTs are located within the earthen dike walls that form the secondary containment area. Tanks 1 and 5 are located on the southeastern portion of the containment area, and Tanks 2, 3, and 4 are located within the northwestern portion of the containment area. The outside slope of the containment dikes are lined with crushed stone and the interior area is lined with a geotextile membrane. The access road runs between Tanks 1 and 4 with a cross flow pipe to allow free flow of runoff from one side of the access road to the other. The sand and stone utilized in the construction of the access road within the containment area has been placed on top of the

impervious barrier. All overflow vents/lines are directed inside the secondary containment area. In accordance with EPA regulations, containment areas must hold either the volume of the largest tank plus freeboard for a 25-year storm event, or 110% of the largest tank volume, whichever is greater. For this facility 110% of the volume of Tank 1 generates the largest volume and was used as the minimum required containment volume. The SPCC plan provides more details regarding the tanks and secondary containment volumes.

Any spills at the site will be trapped in the secondary containment area, and procedures within the SPCC plan would be followed.

<u>Tanker Truck Loading Area:</u> Tanker trucks will receive product from the NEPT North facility through a series of pipes extending to the off-site loading racks located on the adjacent Hudson Liquid Asphalt site.

<u>Marine Loading Area:</u> The existing Hudson Terminal will be used to receive product. A new aboveground pipeline will convey product from the Hudson berthing area through the Hudson site to the NEPT North storage tanks.

Site Buildings: No buildings are proposed for the North site.

Aboveground Piping: Petroleum products will be transferred from the docks at the marine loading area to the ASTs and from the ASTs to the off-site loading rack through aboveground piping that will cross the containment area berm along the northeasterly property line. Piping located outside of the secondary containment area berm along the southern portion of the site will service the South facility and will cross Terminal Road on the pipe bridge. This section of piping located outside the containment berm will be double walled to control the accidental release of product.

<u>Sanitary and Solid Waste Management:</u> There will be no buildings located on the site and therefore no sanitary wastewater will be generated. Also, no solid waste will be generated or collected on-site.

Site Drainage

A closed storm water drainage system has been installed on site prior to the construction of the new tanks. The surface area of the site was cleared to allow for the placement of an impervious secondary containment liner system. The purpose of the liner is to prevent the accidental release of petroleum products from entering the soil and groundwater. Since the liner is impervious, storm water that is collected in the secondary containment area will be conveyed through a controlled release to an oil/water separator (OWS) and then discharged overland to the City of Providence storm water drainage system located within the Terminal Road right of way. The closed storm water drainage system consists of high-density polyethylene (HDPE) piping with fusion-welded joints. The control valve is ductile iron with mechanical joints. Catch basins and manholes are pre-cast concrete structures coated with epoxy sealant to ensure water tightness. The drainage system is constructed to prevent the release of potentially contaminated storm water into the subsurface soil.

Storm water runoff is retained in the containment area by the berm and impervious liner. The storm water is collected by a series of catch basins and underground HDPE pipes. The control valve that is located within the containment area will be closed causing the storm water to be retained within the containment area. The control valve will remain closed for 2.5 hours after a storm event to allow adequate settling of suspended particles within the depressed areas and catch basin sumps of the secondary containment area. Following a storm event and the above time period, the retained runoff will be observed to determine if there is any petroleum sheen and/or free product. If no sheen and/or free product are observed, the valve will be opened and the storm water will be conveyed by gravity from the containment area to a manhole equipped with a sump pump, which will direct flow into the aboveground OWS. A sampling manhole is

located just downstream of the OWS. The treated flow is then conveyed into an 8-inch diameter storm drain that connects to an existing headwall. Runoff then flows a short distance overland to an existing catch basin located on the northerly side of Terminal Road. This catch basin ties into the City of Providence 12-inch to 15-inch RCP storm drain and discharges into the Providence River approximately 970 feet to the east of the site.

The flow rate to the OWS is controlled by the flow rate of the pump, which conveys the storm water into the OWS. The flow rate was determined by calculating the volume of storm water that would accumulate within the containment area for a 25-year storm event. To convey this volume of storm water through the OWS a Highland Tank Model 6000 was selected that has a flow rate capacity of 600 GPM.

Runoff generated from areas outside the containment area are not exposed to industrial activity and will not be controlled with the proposed drainage system and the existing drainage patterns will continue.

Storm Water Collection and Treatment System

Outfall 001 is defined as the sampling manhole immediately downstream from the above ground OWS. All storm water collected at the site originates from the dike wall/bermed areas surrounding the five (5) on site ASTs. All storm water is collected at the site and will be directed to the above ground OWS prior to discharging to the City of Providence storm water drainage system on Terminal Road which ultimately discharges to the Providence River approximately 970 feet to the east of the site. A filter installed within the Highland Tank OWS will capture particles down to a size of 7-10 micrometers.

Explanation of Effluent Limitation Derivation and Conditions

The draft RIDES permit for New England Petroleum Terminal, LLC. – Northern Terminal, 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:

Qutfall 001: Effluent limitations for Outfall 001 have been established for total suspended solids (TSS), oil and grease, and pH. 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. Performance data from terminals similar to this facility, 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 effective best management practices (BMPs). The effluent limitations for pH are based on water quality criteria established in the State's Water Quality Regulations for Saltwater Receiving Waters.

Outfall 001 must also be monitored for sixteen (16) polynuclear aromatic hydrocarbons (PAHs). These pollutants were chosen because they are indicators used to characterize contamination from the petroleum hydrocarbons stored at the site.

<u>Flow</u>: 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. The oil/water separator that is being installed at this facility has a design flow rate of 600 GPM or 0.864 MGD. 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 design flow rate for the oil/water separator or cause violations of the effluent limitations specified in the permit. A separate control valve for the secondary containment area allows for the release of storm water from this area. The flow limit in the permit has been set equal to the design flow rate for the oil/water separator servicing Outfall 001 of 0.864 MGD (600 GPM).

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 the oil/water separator.

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 as specified for outfall 001. 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 exceedence.

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.

Prohibited Discharges

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.

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) 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 tank bottom or bilge water alone or in combination with storm water or other wastewater directly from the facility. The facility is required by the permit to dispose of tank bottom water offsite by a licensed hazardous waste contractor.

<u>Contaminated Groundwater:</u> 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 the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.

Antibacksliding

EPA's antibacksliding provision at 40 CFR §122.44(I) 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. 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

11/14/08 Date

Eric A. Beck, P.E.

Supervising Sanitary Engineer RIPDES Permitting Section

Office of Water Resources

Department of Environmental Management

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ATTACHMENT A

NEW ENGLAND PETROLEUM TERMINAL, LLC. NORTHERN TERMINAL LOCATION MAP & SITE DRAINAGE PLAN



