

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL
POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA", and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Radiant Fuel Company, Inc.

is authorized to discharge from a Facility located at

**1211 Washington Street
West Newton, Massachusetts 02465**

to receiving water named

**Cheese Cake Brook MA72-29
(Charles River Watershed MA72)**

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

This permit will become effective upon the date of signature.

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

This permit supersedes the permit issued on September 15, 2005.

This permit consists of 12 pages in Part I including effluent limitations, monitoring requirements, and 25 pages in Part II including General Conditions and Definitions.

Signed this 6th day of August, 2012

/s/SIGNATURE ON FILE

Stephen S. Perkins, Director
Office of Ecosystem Protection
Environmental Protection Agency
Region 1
Boston, MA

David Ferris, Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

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

1. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge treated stormwater runoff, treated effluent from firefighting activities, fire hydrant flushing, and potable water sources to Cheese Cake Brook, through **Outfall Serial Number 001**. Such discharge shall: 1) be limited and monitored by the permittee as specified below; and 2) not cause a violation of the State Surface Water Quality Standards of the receiving water.

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirements ⁽¹⁾	
		Average Monthly	Total Monthly	Maximum Daily	Measurement Frequency	Sample Type
Flow Rate ⁽³⁾	gpm	----		500	When Discharging	Estimate
Total Flow ⁽⁴⁾	Mgal/ Month	----	Report Monthly Total	----	When Discharging	Estimate
Number of Discharge Days	days	----		Report	When Discharging	Calculated
Total Suspended Solids (TSS)	mg/L	30		100	1/Month ⁽²⁾	Grab
Oil and Grease (O&G) ⁽⁵⁾	mg/L	----		15	1/Month ⁽²⁾	Grab
pH	S.U.	----		6.5 to 8.3 ⁽⁶⁾	1/Month ⁽²⁾	Grab

See page 4 for explanation of footnotes.

Part I.A.1. Continued

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements ⁽¹⁾	
		Average Monthly	Maximum Daily	Measurement Frequency	Sample Type
Polynuclear Aromatic Hydrocarbons (PAHs)					
Benzo(a)anthracene	mg/L	----	Report	1/Year ⁽²⁾	Grab
Benzo(a)pyrene	mg/L	----	Report	1/Year ⁽²⁾	Grab
Benzo(b)fluoranthene	mg/L	----	Report	1/Year ⁽²⁾	Grab
Benzo(k)fluoranthene	mg/L	----	Report	1/Year ⁽²⁾	Grab
Chrysene	mg/L	----	Report	1/Year ⁽²⁾	Grab
Dibenzo(a,h)anthracene	mg/L	----	Report	1/Year ⁽²⁾	Grab
Indeno(1,2,3-cd)pyrene	mg/L	----	Report	1/Year ⁽²⁾	Grab
Naphthalene	mg/L	----	Report	1/Year ⁽²⁾	Grab
<i>E. Coli</i> Bacteria ⁽⁷⁾	cfu/100ml	-----	Report	1/Quarter ⁽²⁾	Grab

See page 4 for explanation of footnotes.

Footnotes:

1. All samples shall be collected from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (i.e., greater than 0.1 inch rainfall) storm event. All samples are to be grab samples taken within thirty (30) minutes of the initiation of the discharge from the outfall(s) where practicable, but in no case later than within the first hour of discharge from the outfall(s). Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: after treatment in the Oil/Water (O/W) separator but before the effluent is discharged into and/or mixes with the storm water collection system.
2. Sampling frequency of 1/month is defined as the sampling of one (1) storm event (as defined above in Footnote No. 1) in each calendar month. Quarters are defined as the interval of time between the months of: January through March, inclusive; April through June, inclusive; July through September, inclusive; and October through December, inclusive. Sampling frequency of 1/Year is defined as the sampling of one (1) storm event (as defined above in Footnote No. 1) in each year during the quarterly monitoring period of April through June, inclusive. **Quarterly and Annual sampling shall be performed concurrently with one of the monthly monitoring events.** The permittee shall submit the results to EPA of any additional testing done to that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR §122.41(l)(4)(ii).
3. For Flow Rate, the maximum daily value represents the estimated maximum instantaneous flow rate identified by the Facility as passing through the O/W separator for each day that storm water is discharged during the reporting period.
4. For Total Flow, the value reported represents the estimated sum of the flow for each day that storm water is discharged during that month. The total monthly flow rate shall be calculated based upon the summation of daily flow results and shall be reported in the units of millions of gallons/month (Mgal/month). The permittee shall also report the total number of days during the reporting period in which there was a discharge from Outfall 001.
5. Oil and Grease shall be measured using EPA Method 1664.
6. See Part I.A.3. for a description of the pH limits.
7. Bacteria sampling shall be conducted once per calendar quarter. If the results of the first four consecutive samples are below 235 organisms per 100 ml for *E. Coli* and the geometric mean of the samples is below 126 colonies per 100 ml for *E. Coli*, the permittee may request that monitoring be required only annually thereafter. This change will occur upon EPA's written approval.

Part I.A. (Continued)

2. The discharges either individually or in combination shall not cause a violation of State Water Quality Standards of the receiving waters.
3. The pH of the effluent shall be in the range of 6.5 through 8.3 standard units and not more than 0.5 units outside of the natural background. There shall be no change from natural background conditions that would impair any use assigned to this Class B water.
4. The discharge shall not cause objectionable discoloration of the receiving waters.
5. The discharge shall not contain a visible oil sheen, foam, nor floating solids at any time.
6. The discharge shall not contain materials in concentrations or combinations which are hazardous or toxic to human health, aquatic life of the receiving surface waters or which would impair the uses designated by its classification.
7. There shall be no discharge of tank bottom water alone or in combination with storm water discharge.
8. The discharge shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsuitable for the designated uses and characteristics ascribed to their use.
9. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.
10. The permittee shall inspect, operate, and maintain the O/W separator at the Facility to ensure that the Effluent Limitations and Conditions contained in this permit are met. The permittee shall ensure that all components of the Facility's Storm Water Pollution Prevention Plan including those which specifically address the operation and maintenance of the O/W separator and other components of the storm water conveyance system are complied with.
11. Chemicals (e.g. disinfecting agents, detergents, emulsifiers), and bioremedial agents including microbes, shall not be added to the collection and treatment systems without prior approval by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) to prevent hydrocarbon and/or particulate matter carryover into the Cheese Cake Brook.

12. There shall be no discharge of any sludge and/or bottom deposits from any storage tank(s), basin(s), and/or bermed area(s) to the receiving waters. Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, stilling basins, O/W separators, petroleum product storage tanks, baffled storage tanks collecting spills, and tank truck loading rack sumps.
13. The bypass of storm water runoff at the Facility from treatment through the oil/water separator is prohibited except where necessary to avoid loss of life, injury, or severe property damage. Each bypass shall be sampled for all of the effluent characteristics identified in Part I.A.1. of this permit (i.e., monthly and quarterly) and the results reported to EPA within forty-five (45) days of the initiation of the bypass. These bypass reporting requirements are in addition to those already identified in 40 Code of Federal Regulations (CFR) §122.41(m).
14. EPA may modify this permit in accordance with EPA regulations in 40 CFR §122.62 and §122.63 to incorporate more stringent effluent limitations, increase the frequency of analyses, or impose additional sampling and analytical requirements.
15. The permittee shall attach a copy of the laboratory case narrative to the respective Discharge Monitoring Report Form submitted to EPA and MassDEP for each sampling event reported. This laboratory case narrative shall include a copy of the laboratory data sheets for each analyses (identifying the test method, the analytical results, and the detection limits for each analyte) and provide a brief discussion of whether all appropriate QA/QC procedures were met and were within acceptable limits.
16. 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 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 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. §122.21(g)(7); or

(4) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).

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. §122.21(g)(7).
- (4) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).

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

17. Wastewater Treatment System Flow Control

- a. Written notification and approval by EPA and the MassDEP shall be required, should the permittee propose changes to the storm water conveyance or treatment system which has the potential to cause the maximum design flow rate through the O/W separator to be exceeded.

18. Toxics Control

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

19. Hydrostatic Test Water Discharges

- a. The discharge of hydrostatic test water is prohibited in this permit.

B. PRECIPITATION pH MONITORING REQUIREMENT

The permittee shall establish a monitoring location to measure the pH of precipitation concurrently with the pH measurement of stormwater discharge from Outfall 001 using the same pH meter as required in Part I.A.1. of this permit. The permittee shall collect precipitation using a dedicated rain gauge on site to ensure the precipitation pH measurement is conducted before precipitation enters the subsurface. In the event that discharge pH is less than 6.5 or greater than 8.3 standard units the permittee shall record the concurrent precipitation pH on the discharge monitoring report as required by Part I.E.1. of this permit.

C. BEST MANAGEMENT PRACTICES/STORMWATER POLLUTION PREVENTION PLAN

1. The permittee shall update and implement the Stormwater Pollution Prevention Plan (SWPPP) designed to reduce, or prevent, the discharge of pollutants in stormwater to the receiving waters identified in this permit. The SWPPP shall be updated to be consistent with the terms of this permit. The permittee shall comply with the terms of its SWPPP.
2. The SWPPP shall be updated and signed by the Permittee within 90 days after the effective date of this permit. The permittee shall certify that the SWPPP meets the requirements of the permit. The certification shall be signed in accordance with the requirements identified in 40 CFR §122.22. A copy of this certification shall be sent to EPA and MassDEP within one hundred and twenty (120) days of the effective date of the Permit.
3. The SWPPP shall be consistent with the general provisions for SWPPPs included in the most current version of the Multi-Sector General Permit (MSGP) for Stormwater discharges associated with industrial activities (the current version of the MSGP was issued on September 29, 2008). The SWPPP shall include best management practices (BMPs) for on-site activities that will minimize the discharge of pollutants in stormwater to waters of the United States. The permittee shall use the benchmark values provided in the MSGP in conjunction with the ongoing stormwater sampling results to determine whether it is effectively minimizing the discharge of these parameters in its stormwater.
4. The SWPPP shall be revised as necessary to be in accordance with good engineering practices, to identify potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges, and to describe and ensure implementation of practices which will be used to reduce the pollutants and assure compliance with this permit. Specifically, the SWPPP shall contain the elements listed below:
 - a. A pollution prevention team responsible for developing, implementing, maintaining, revising and ensuring compliance with the SWPPP.
 - b. A site description which includes a list of activities at the Facility; a site map showing drainage areas and direction of stormwater flows; receiving waters and outfall location; the location of industrial activities, storage, disposal, material handling; and all structural controls.

- c. A summary of all pollutant sources which includes all areas where spills have occurred or could occur. For each source, identify the expected drainage and the corresponding pollutant.
 - d. A summary of any existing stormwater discharge sampling data.
 - e. A description of all stormwater controls, both structural and non-structural. BMPs must include good housekeeping measures, preventative maintenance programs, spill prevention and response procedures, runoff management practices, and proper handling of salt or materials containing salt that are used for deicing activities. The SWPPP shall describe how the BMPs are appropriate for the Facility. All BMPs shall be properly maintained and be in effective operating condition.
5. All areas identified in the SWPPP shall be inspected, at least on an annual basis. A tracking or follow-up procedure must be used to ensure that all appropriate actions have been taken in response to such inspection. Records documenting significant observations made and actions taken during and after inspections must be retained as part of the SWPPP for a minimum of five (5) years.
6. The permittee shall amend and update the SWPPP within 14 days for any changes at the Facility affecting the SWPPP. Changes which may affect the SWPPP include, but are not limited to, the following activities: a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the United States; a release of a reportable quantity of pollutants as described in 40 CFR §302; or a determination by the permittee or EPA that the SWPPP appears to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Any amended or new versions of the SWPPP shall be re-certified by the Permittee. Such re-certifications also shall be signed in accordance with the requirements identified in 40 CFR §122.22.
7. The permittee shall maintain, update and implement the SWPPP to account for any changes that occur at the Facility which could impact the plan. The permittee shall provide an annual report that includes the proper certification to EPA and the MassDEP documenting that the previous year's inspections and maintenance activities were conducted, results recorded, records maintained, and that the Facility is in compliance with the SWPPP. The report with the proper certification shall be signed in accordance with the requirements identified in 40 CFR §122.22 and a copy of the certification will be sent each year to EPA and MassDEP **within 30 days of the annual anniversary of the effective date of the permit**. The permittee shall keep a copy of the most recent SWPPP at the Facility and shall make it available for inspection by EPA and MassDEP.

D. REOPENER CLAUSE

1. This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - b. Controls any pollutants not limited in the permit.

E. MONITORING AND REPORTING

1. **For a period of one year from the effective date of the permit**, the permittee may either submit monitoring data and other reports to EPA in hard copy form or report electronically using NetDMR, a web-based tool that allows permittee's to electronically submit discharge monitoring reports (DMRs) and other required reports via a secure internet connection. Specific requirements regarding submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

- a. Submittal of Reports Using NetDMR

NetDMR is accessed from: <http://www.epa.gov/netdmr>. **Within one year of the effective date of this permit**, the permittee shall begin submitting DMRs and reports required under this permit electronically to EPA using NetDMR, unless the Facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports ("opt-out request").

DMRs shall be submitted electronically to EPA no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees shall continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP.

- b. Submittal of NetDMR Opt-Out Requests

Opt-out requests must be submitted in writing to EPA for written approval at least sixty (60) days prior to the date a Facility would be required under this permit to begin using NetDMR. This demonstration shall be valid for twelve (12) months from the date of EPA approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to EPA unless the permittee submits a renewed opt-out request and such request is approved by EPA. All opt-out requests should be sent to the following addresses:

Attn: NetDMR Coordinator

U.S. Environmental Protection Agency, Water Technical Unit
5 Post Office Square, Suite 100 (OES04-1)
Boston, MA 02109-3912

and

Massachusetts Department of Environmental Protection
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

c. Submittal of Reports in Hard Copy Form

Monitoring results shall be summarized for each calendar month and reported on separate hard copy Discharge Monitoring Report Form(s) (DMRs) postmarked no later than the 15th day of the month following the completed reporting period. All reports required under this permit shall be submitted as an attachment to the DMRs. Signed and dated originals of the DMRs, and all other reports or notifications required herein or in Part II shall be submitted to the Director at the following address:

U.S. Environmental Protection Agency
Water Technical Unit (OES04-SMR)
5 Post Office Square - Suite 100
Boston, MA 02109-3912

Duplicate signed copies of all reports or notifications required above shall be submitted to the State at the following address:

MassDEP – Northeast Region
Bureau of Waste Prevention (Industrial)
205B Lowell Street
Wilmington, MA 01887

And

Massachusetts Department of Environmental Protection
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

Any verbal reports, if required in **Parts I** and/or **II** of this permit, shall be made to both EPA and to MassDEP.

F. STATE PERMIT CONDITIONS

1. This authorization to discharge includes two separate and independent permit authorizations. The two permit authorizations are (i) a federal National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act, 33 U.S.C. §§1251 et seq.; and (ii) an identical state surface water discharge permit issued by the Commissioner of MassDEP pursuant to the Massachusetts Clean Waters Act, MGL c. 21, §§ 26-53, and 314 CMR 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 CMR 3.19, are hereby incorporated by reference into this state surface water discharge permit.
2. This authorization also incorporates the state water quality certification issued by MassDEP under § 401(a) of the Federal Clean Water Act, 40 CFR 124.53, MGL c. 21, § 27 and 314 CMR 3.07. All of the requirements (if any) contained in MassDEP's water quality certification for the permit are hereby incorporated by reference into this state surface water discharge permit as special conditions pursuant to 314 CMR 3.11.
3. Each agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of this permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared invalid, illegal or otherwise issued in violation of state law such permit shall remain in full force and effect under federal law as a NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of federal law, this permit shall remain in full force and effect under state law as a permit issued by the Commonwealth of Massachusetts.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
5 POST OFFICE SQUARE – SUITE 100
BOSTON, MASSACHUSETTS 02109-3912**

FACT SHEET

**DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO
DISCHARGE TO WATERS OF THE UNITED STATES PURSUANT TO THE CLEAN WATER ACT
(CWA)**

NPDES PERMIT NUMBER: MA0001236

PUBLIC NOTICE START AND END DATES: June 6, 2012 – July 5, 2012

NAME AND MAILING ADDRESS OF APPLICANT:

Radiant Fuel Company, Inc.
1211 Washington Street
West Newton, Massachusetts 02458

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Radiant Fuel Company, Inc.
1211 Washington Street
West Newton, Massachusetts 02458

RECEIVING WATER: Cheese Cake Brook / Charles River
Watershed Hydrologic Basin Code: 01090001

RECEIVING WATER CLASSIFICATION(S): B (Warm Water)

SIC CODE: 5171 (Bulk Petroleum Stations and Terminals)

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Attachment A – Locus Plan

Attachment B – Site Plan

Attachment C – Discharge Monitoring Report Summary

1. PROPOSED ACTION, TYPE OF FACILITY, AND DISCHARGE LOCATION

The above applicant has applied to the U.S. Environmental Protection Agency (EPA) for re-issuance of a National Pollutant Discharge Elimination System (NPDES) permit to discharge treated stormwater into the designated receiving water (Cheese Cake Brook). The Current Permit ("2005 Permit") was issued on November 15, 2005, and expired five years from the effective date (November 15, 2010). EPA received a completed permit renewal application from Radiant Fuel Company dated May 19, 2010. Since the permit renewal application was deemed timely and complete by EPA, the permit has been administratively continued.

Radiant Fuel Company ("the Facility") is an inland petroleum distribution facility located in West Newton, Massachusetts with operations consisting of the receipt, storage, and distribution of petroleum products. Only No. 2 Fuel Oil is received and distributed at the Facility. The NPDES discharge at the Facility consists of stormwater runoff from impervious areas near the loading rack and near the office building. The stormwater is treated through the use of an oil/water (O/W) separator and discharged to the City of Newton storm sewer collection system which deposits the stormwater in Cheese Cake Brook via one outfall (Outfall 001). There is an additional outfall on the property which discharges stormwater from a parking lot separated from industrial activities by a berm. Therefore, this outfall is not regulated by this NPDES permit.

Attachment A includes the Site Locus map and Attachment B includes the Site Plan, which shows the layout of the Facility, locations of containment berms, drainage pathway including catch basin locations, location of the O/W Separator, and the NPDES outfall location.

2. FACILITY INFORMATION

The Facility covers an area of approximately one half acre in West Newton, Massachusetts between Washington Street, Watertown Street and Dunstan Street. A majority of the property is situated behind the commercial businesses located along Washington Street.

The Facility receives wholesale petroleum product by tank truck with loads originating from Boston Harbor storage facilities and only stores No. 2 Fuel Oil at the Facility. The Facility dispenses wholesale No. 2 Fuel Oil into tank trucks that distribute it to retail customers within Greater Boston. The site has one (1) truck loading rack with two (2) over-head product dispensing lines, a product receiving line, an office, a storage garage, three (3) 20,000 gallon steel Underground Storage Tanks (USTS), an Oil/Water (O/W) separator, and one 500 gallon concrete underground product recovery tank. There are no other tanks at the Facility. The 500 gallon concrete product recovery tank is used to recover usable product from oil/water mixtures, when needed. Oil recovered from this tank is pumped back to the product storage tanks for reuse and the separated water is removed by vacuum truck and disposed of by Safety Kleen Systems Inc. The three USTS are epoxy lined and cathodically protected and all three tanks were last precision tested on April 6, 2011. All USTS are filled from a central point near the dispensing area. The USTS are inspected annually by WEB Engineering Associates Inc.

The site is covered with an impervious bituminous asphalt surface except for the area under the loading racks, which is covered with impervious concrete, the site also contains a bituminous asphalt berm to contain petroleum in the event of a spill. This asphalt berm system would contain spills from either the dispensing area or the product receiving area. There are two stormwater catch basins which drain this approximate 2,750 square foot bermed area. Stormwater is collected from these two catch basins located within the bermed area surrounding the truck loading rack, and flows by gravity into the O/W separator. In addition, there are two catch basins adjacent to the office, one on the east side of the office and one on the west side that do not drain to the O/W separator. The catch basin to the east of the office drains to the City of Newton municipal storm

sewer collection system (MS4) which deposits stormwater into Cheese Cake Brook (see Attachment B). The catch basin to the west of the office, which is located in front of the garage doors in the basement of the office, is not associated with any industrial activity and drains directly to Cheese Cake Brook (see Attachment B). The permittee does not discharge any other source waters to Cheese Cake Brook other than stormwater from rain events.

The concrete O/W separator is a gravity flow system with a 5,000 gallon capacity. This separator has retention capability to contain oil in the event of a spill, and there is a product recovery tank to accept and store oil product that enters into the separator. The separator is to be inspected monthly (Storm Water Pollution Prevention Plan, March 2006, Section IV) and cleaned on an annual basis. After passing through the Separator, the stormwater is discharged into the City of Newton storm sewer, to Cheese Cake Brook, located immediately behind the Facility's office building (see Attachment B).

Only stormwater runoff from rain events is treated and discharged. The discharge of treated stormwater occurs only during rain events with intensities large enough to create flow through the O/W separator treatment system. Based on the area of the bermed portion of the site, a one-inch rainfall event results in the discharge of 1,714 gallons of treated stormwater (Equation 1):

Equation 1

$$2,750ft^2 \times 1in \times \frac{1ft}{12in} = 229.17ft^3 \times \frac{7.48gal}{1ft^3} = 1,714gal.$$

This Draft Permit authorizes the discharge of stormwater runoff from one outfall (outfall 001, see Attachment B) at the Facility. The discharge goes to Cheese Cake Brook via the City of Newton MS4, and the downstream Charles River.

3. DESCRIPTION OF DISCHARGE

The Facility discharges stormwater, as defined in 40 CFR 122.26(b)(13) to mean stormwater runoff, snow melt runoff and surface runoff and drainage, which may contain a wide range of contaminants. The concentrations of such contaminants are generally site specific and therefore may vary greatly from site to site. Based on the activities and operations at the Facility, for this Draft Permit, the pollutants of concern include total suspended solids, oil and grease, and polynuclear aromatic hydrocarbons (PAHs).

A summary of the discharge, based on discharge monitoring data from February 2005 through August 2011 for Outfall 001, is presented in Attachment C. These data were collected under the terms of the 2005 permit.

4. RECEIVING WATER DESCRIPTION

The Facility discharges stormwater through Outfall 001 to Cheese Cake Brook (Massachusetts waterbody segment ID MA72-29), which is part of the Charles River watershed. Cheese Cake Brook is an intermittent water body, 1.4 miles in length that conveys stormwater runoff from West Newton, Massachusetts to the Charles River (Massachusetts waterbody segment ID MA72-07).

Cheese Cake Brook is designated as a Class B waterbody¹ by the Commonwealth of Massachusetts. These waters are designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction,

¹ MassDEP. 2008. Charles River Watershed 2002-2006 Water Quality Assessment Report. Massachusetts Department of Environmental Protection Division of Watershed Management. Worcester, Massachusetts. (CN: 136.5).

migration, growth and other critical functions, and for primary and secondary contact recreation. Where designated in 314 CMR 4.06, they shall be suitable as a source of public water supply with appropriate treatment ("Treated Water Supply"). Class B waters shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value.

Section 303 (d) of the CWA requires States to identify those water bodies that are not expected to meet water quality standards after the implementation of technology based controls and, as such require the development of total maximum daily loads (TMDL). Cheese Cake Brook is listed as Category 5 - Waters Requiring a TMDL, see the table below reproduced from the Proposed Massachusetts Year 2010 Integrated List of Waters² for the pollutants needing a TMDL.

NAME SEGMENT ID	DESCRIPTION	SIZE	POLLUTANT NEEDING TMDL OR [EPA APPROVAL DATE-DOCUMENT CONTROL NUMBER]
Cheese Cake Brook (7239100) MA72-29	Emerges south of Route 16, Newton to confluence with the Charles River, Newton.	1.4 miles	-Escherichia coli [5/22/2007-CN156.0] -Excess Algal Growth -Other anthropogenic substrate alterations* -Phosphorus (Total) -Alteration in stream-side or littoral vegetative covers* -Dissolved Oxygen Saturation

NOTES:

* - Non-Pollutant

[] – TMDL (Restorative)

MassDEP is required under the CWA to develop a Total Maximum Daily Load (TMDL) for a waterbody once it is identified as impaired. A TMDL is essentially a pollution budget designed to restore the health of a water body. A TMDL first identifies the source(s) of the pollutant from direct and indirect discharges in order to next determine the maximum amount of pollutant (including a margin of safety) that can be discharged to a specific water body while maintaining water quality standards for designated uses. It then outlines a plan to meet the goal.

The *Final Pathogen TMDL for the Charles River Watershed* has been developed. This TMDL covers Cheese Cake Brook and requires a 99.6 percent reduction in indicator bacteria load to comply with the TMDL. This TMDL indicates that potential sources of pathogens in Cheese Cake Brook include: illicit sewer discharge to storm drain located upstream from Watertown Street and additional illicit sewer discharges. While the nature of operations at the Facility is not expected to contribute to the pathogen impairment in Cheese Cake Brook, additional bacteria monitoring is required in the Draft Permit to ensure compliance with the Pathogen TMDL for the Charles River Watershed (see section 6 and 7 of this fact sheet for more information).

² MassDEP. 2010. Massachusetts Year 2010 Integrated List of Waters- Proposed listing of the condition of Massachusetts' waters pursuant to Sections 303(d) and 305(b) of the Clean Water Act. Commonwealth of Massachusetts Executive Office of Environmental Affairs. (CN:175.0).

5. LIMITATIONS AND CONDITIONS

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

6. PERMIT BASIS: STATUTORY AND REGULATORY AUTHORITY

6.1 General Requirements

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit unless such a discharge is otherwise authorized by the CWA. The NPDES permit is the mechanism used to implement technology and water quality-based effluent limitations and other requirements including monitoring and reporting. The draft NPDES permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and applicable State regulations. The regulations governing the EPA NPDES permit program are generally found at 40 CFR Parts 122, 124, 125, and 136. In this permit EPA considered (a) technology-based requirements, (b) water quality-based requirements, and (c) all limitations and requirements in the 2005 permit, when developing the permit limits.

6.2 Technology Based Requirements

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

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

6.3 Water Quality-Based Requirements

Section 301(b)(1)(C) of the CWA requires that effluent limitations based on water quality considerations be established for point source discharges when such limitations are necessary to meet State or Federal water quality standards that are applicable to the designated receiving water. This is necessary when technology-based limitations would interfere with the attainment or maintenance of water quality in the receiving water. Under Section 301(b)(1)(C) of the CWA and EPA regulations, NPDES permits must contain effluent limits more stringent than technology-based limits where more stringent limits are necessary to maintain or achieve State or Federal water quality standards.

Water quality standards consist of three parts: (1) beneficial designated uses for a water-body or a segment of a water-body; (2) numeric and/or narrative water quality criteria sufficient to protect the assigned designated use(s); and (3) anti-degradation requirements to ensure that once a use is attained it will not be degraded. The Massachusetts Surface Water Quality Standards, found at 314 CMR 4.00, include these elements. The State will limit or prohibit discharges of pollutants to surface waters to assure that surface water quality standards of the receiving waters are protected and maintained or attained. These standards also include requirements for the regulation and control of toxic constituents and require that EPA criteria, established pursuant to Section 304(a) of the CWA, shall be used unless a site specific criteria is

established.

The Draft Permit must limit any pollutant or pollutant parameter (conventional, non-conventional, and toxic) that is or may be discharged at a level that causes or has the "reasonable potential" to cause or contribute to an excursion above any water quality standard (40 CFR 122.44(d)). An excursion occurs if the projected or actual in-stream concentration exceeds an applicable water quality criterion. In determining "reasonable potential", EPA considers: (1) existing controls on point and non-point sources of pollution; (2) pollutant concentration and variability in the effluent and receiving water as determined from the permit's re-issuance application, monthly discharge monitoring reports (DMRs), and State and Federal Water Quality Reports; (3) sensitivity of the indicator species used in toxicity testing; (4) known water quality impacts of processes on waste waters; and (5) where appropriate, dilution of the effluent in the receiving water.

6.4 Anti-backsliding

Anti-backsliding as defined in 40 CFR 122.44(l)(1) requires reissued permits to contain limitations as stringent or more stringent than those of the previous permit unless the circumstances allow application of one of the defined exceptions to this regulation. As explained above, anti-backsliding applies to limits contained in the existing permit and, therefore, these limits are continued in the Draft Permit. Anti-backsliding is not triggered in this Draft Permit.

6.5 Anti-degradation

The Commonwealth of Massachusetts anti-degradation provisions found in 314 CMR 4.04 ensure that provisions in 40 CFR Section 131.12 are met. These provisions ensure that all existing uses in the receiving water, along with the level of water quality necessary to protect those existing uses, are maintained and protected. The effluent limits in the Draft Permit should ensure that provisions in 314 CMR 4.04 are met. The State is also asked to certify that the anti-degradation provisions in State law are met.

7. EXPLANATION OF THE PERMIT'S EFFLUENT LIMITATION(S)

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

The Draft Permit is conditioned to: (1) better regulate plausible non-stormwater discharges alone or in combination with stormwater runoff to the downstream Charles River, and (2) to better regulate ancillary operations that have the potential to contact stormwater (e.g., facility site runoff, and product loading and unloading).

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

Thus the draft permit for Radiant Fuel, authorizing the discharge of Stormwater, includes numeric effluent limits and requires the development, implementation, and annual review of the SWPPP prepared for the Facility. The effluent parameters in the draft permit are discussed in more detail below according to the effluent characteristic(s) being regulated.

The discharge monitoring report (DMR) data for Outfall 001 for the reporting period of February 2005 through August 2011 were reviewed for this permit reissuance (see Attachment C for all DMR data for this time period).

7.1 Flow

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

To ensure proper operation of installed O/W separators such that the oil and/or particulate phases are not entrained to the waterway, it is important that the flow through the separator be maintained at or below the maximum design flow rate of the separator. During the previous permit term, Radiant Fuel identified the maximum design flow rating for the O/W separator to be is 500 gallons per minute (gpm) and during a site visit conducted May 25, 2011, Steven Donato confirmed no changes have been made to the O/W separator since the last permit issuance. The Draft Permit requires that the Facility provide written notification and receive approval by EPA and MassDEP for any proposed changes which have the potential to cause the maximum design flow rate through the O/W separator to be exceeded.

EPA and MassDEP have determined that the current maximum design flow rating for the O/W separator will not be exceeded even under the most extreme precipitation events. The calculation below indicates that the estimated 5 minute 500 year storm (1.04 inches of precipitation in 5 minutes)³ would result in a flow rate through the O/W separator of 356.55 gpm (Equation 2) which is below the maximum design flow of 500 gpm. The instantaneous flow rate of 500 gpm, which is based upon the overall capacity of the separator, will remain the flow rate limit for Outfall 001. Based on the estimated max flow rate through the O/W separator, the permittee is not required to install or maintain a flow control device on the O/W separator.

Equation 2

$$2,750ft^2 \times 1.04in \times \frac{1ft}{12in} = 238.33ft^3 \times \frac{7.48gal}{1ft^3} \div 5min = 356.55gal/min$$

7.2 pH

Massachusetts Surface Water Quality Standards require the pH of Class B waters to be within the range of 6.5 to 8.3 standard units (S.U.) and within 0.5 S.U. of natural background pH. A summary of the discharge monitoring data submitted by the Facility during the time period of February 2005 to August 2011 is included as Attachment C to this fact sheet. In response to the MassDEP's Notice of Non-compliance issued on April 15, 2005, the Facility measured rainwater pH monthly from a roof drain that discharges to the City of Newton MS4 through a subsurface drainage pipe to ensure the pH of O/W separator effluent was within 0.5 S.U. of background pH. The Draft Permit requires that background rainwater pH be sampled before the water enters the subsurface from a dedicated rain gauge installed on site. The permit range of 6.5 to 8.3 and within 0.5 S.U. of the natural background pH range as identified in the Draft Permit, which is to be monitored on a monthly basis, has been established in accordance with the Massachusetts

3 Precipitation data from Northeast Regional Climate Center, <http://precip.eas.cornell.edu/>. Retrieved July 28, 2011.

Surface Water Quality Standards. The discharge shall not exceed this pH range unless due to natural causes as demonstrated by concurrent sampling.

7.3 Oil and Grease

The oil and grease maximum daily limit of 15 mg/l is continued from the previous permit term and is derived from the narrative water quality criteria in the Massachusetts Surface Water Quality Standards (see 314 CMR 4.05(3)(b)(7) and (4)(b)(7)). For discharges to Class B waters in Massachusetts, the narrative criteria require, among other things, that no oil and grease is present that would produce a visible film on the surface of the receiving water. EPA interprets this narrative criterion as prohibiting a discharge to these waters that would cause an oil sheen. EPA has maintained the oil and grease limit of 15 mg/l for this draft permit for both outfalls based on Region 1's long standing use of the 15 mg/l standard to represent the concentration at which a visible oil sheen is likely to occur. This limit will ensure the narrative water quality standard for oil and grease is protected.

7.4 Total Suspended Solids (TSS)

Heavy metals and polynuclear aromatic hydrocarbons are readily adsorbed onto particulate matter and the release of these compounds can be controlled by regulating the amount of suspended solids released into the environment. The 2005 permit contained TSS limits of 30 mg/l and 100 mg/l for the average monthly and maximum daily values, respectively. These limits were developed for the 2005 permit based on a best professional judgment (BPJ) determination considering the technology guidelines promulgated at 40 CFR Part 423 for the Steam Electric Power Point Source Category for guidance. Steam electric generating facilities, similar to bulk petroleum storage facilities, frequently treat various waste streams using O/W separators and therefore were considered comparable to the Facility and the TSS limits for the storage of fuel oil at steam electric facilities were adopted for the 2005 permit. The highest measured TSS value shown in the summary of the discharge monitoring data submitted by the Facility during the time period February 2005 through August 2011 was 26 mg/l (see Appendix A). This value is within the effluent limitations of the previous permit. The TSS limits listed in the Draft Permit will remain 30 mg/l and 100 mg/l for the average monthly and maximum daily values, respectively. The monthly monitoring frequency for this parameter in the Draft Permit remains unchanged from the 2005 permit.

7.5 Polynuclear Aromatic Hydrocarbons (PAHs)

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

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

EPA required sampling for these 16 PAH compounds in other petroleum bulk stations and terminals within both Boston Harbor and South Portland, Maine in the 1990's based on the health concerns discussed above and the potential for PAHs to be present in some of the heavier petroleum distillate and residual products being stored. In general, the sampling results from facilities within Boston Harbor did not show the presence of any of the reported 16 PAH compounds confirming a similar trend noted for the majority of the hundreds of quarterly samples obtained from the South Portland facilities in the-early 1990's. As a result, the NPDES permits for petroleum distribution facilities within Boston Harbor were re-issued in the 2005 and 2006 with a requirement for quarterly monitoring for a subset of these 16 PAH compounds; including the seven (7) PAH compounds identified as probable human carcinogens:

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

The 2005 permit required the permittee to monitor for the PAHs that have been found to be human carcinogens (above) with the addition of Naphthalene, based on Naphthalene's prevalence in petroleum products and known toxicity. The Draft Permit requires the Facility to continue monitoring the above seven (7) PAHs as well as Naphthalene using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. All seven (7) PAHs and Naphthalene were detected in concentrations above detection limits during the previous permit term as reported in DMR data submitted to EPA (see Appendix C). Therefore, the draft permit will retain sampling for selected PAHs and Naphthalene from Outfall No. 001, without limits. While many sampling events resulted in PAH levels above method their respective detection limits, the concentrations of all PAHs tested and Naphthalene were within background baseflow and storm flow ranges found in Washington DC, Texas, South Carolina, and Wisconsin⁴. Due to the low concentrations of all seven (7) PAHs and Naphthalene (all results were at or near the detection limit for the method used during the 2005 permit term (EPA method 8270D)⁵), the sampling frequency for the seven (7) PAHs (above) and Naphthalene has been reduced from quarterly to annually in order to reduce sampling burden while continuing to assess if concentrations of PAHs and Naphthalene in stormwater from the site are remaining low.

7.6 Bacteria

As noted earlier, the receiving water is currently impaired for pathogens and is covered under the approved Final Pathogen TMDL for the Charles River Watershed. Therefore, EPA has determined that limited bacteriological monitoring with no effluent limits will be established in order to assess whether the discharge from this site is contributing to the pathogen impairment. The Commonwealth's water quality standards (WQS) for Class B waters use *E. Coli* as the preferred pathogen indicator bacteria for inland recreational use waters (see 314 CMR 4.05(3)(b)(4)).

For Class B waters, the geometric mean of all *E. Coli* samples taken within the most recent six months shall not exceed 126 colonies per 100 ml typically based on a minimum of five samples and no single sample shall exceed 235 colonies per 100 ml. These levels are typically used as monthly average and daily maximum limits in NPDES permits.

The Draft Permit requires monitoring for *E. Coli* bacteria quarterly. If the results of the first four consecutive samples are below 235 colonies per 100 ml for *E. Coli* and the geometric mean of the samples is below 126 colonies per 100 ml for *E. Coli*, the permittee may request that monitoring be required only annually thereafter. This change will occur upon EPA's written approval. These are monitor only requirements with no limits.

7.7 Tank Bottom 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

4 Summary of results found in: H.-M. Hwang, G.D. Foster, 2006. Characterization of polycyclic aromatic hydrocarbons in urban stormwater runoff flowing into the tidal Anacostia River, Washington, DC, USA. Environmental Pollution v.140, pp 416-426

5 <http://www.epa.gov/osw/hazard/testmethods/sw846/pdfs/8270d.pdf>, retrieved 9/23/2011

coalesces and then settles to the bottom of the tank, compounds found in the product above it, including PAHs, are able to partition and dissolve into the water. This partitioning and dissolution allows the concentrations of some of the more soluble and denser petroleum components to reach toxic levels.

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

7.8 Prohibited Non-Stormwater Discharges

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

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

Treated effluent from these activities means that the effluent shall be directed to the O/W separator either alone or commingled with stormwater, prior to discharge from Outfall 001. No additional monitoring requirements, other than those specified in the draft permit, are necessary for these types of discharges.

8. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

Pursuant to Section 304(e) of the CWA and 40 CFR I 25.103(b), best management practices (BMP) may be expressly incorporated into a permit on a case-by-case basis where necessary to carry out Section 402(a)(1) of the CWA. 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 Cheese Cake Brook.

To control the activities/operations, which could contribute pollutants to waters of the United States via stormwater discharges at this facility, the 2005 permit required the Facility to develop a Stormwater Pollution Prevention Plan (SWPPP) with site-specific BMPs. The SWPPP requirements and the BMPs identified therein are intended to facilitate a process whereby the permittee thoroughly evaluates potential pollution sources at the facility and selects and implements appropriate measures to prevent or control the discharge of pollutants in stormwater runoff. The SWPPP, upon implementation, becomes a supporting element to any numerical limitations in the draft permit. Consequently, the SWPPP is as equally enforceable as the numerical limits.

The Draft Permit ensures that the SWPPP is kept current and adhered to, by requiring the permittee to maintain and update the SWPPP as changes occur at the Facility. In addition, the draft permit requires the

permittee to provide annual certification to EPA and the MassDEP, documenting that the previous year's inspections and maintenance activities were conducted, results recorded, records maintained, and that the Facility is in compliance with its SWPPP. A signed copy of the certification will be sent each year to EPA and MassDEP as well as appended to the SWPPP within thirty (30) days of the annual anniversary of the effective date of the draft permit. This certification will be signed in accordance with the requirements identified in 40 CFR §122.22. A copy of the most recent SWPPP shall be kept at the Facility and be available for inspection by EPA and MassDEP.

9. ESSENTIAL FISH HABITAT DETERMINATION

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

Essential fish habitat is only designated for species for which federal fisheries management plans exist (16 U.S.C. §1855(b)(1)(A)). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999. Although Cheese Cake Brook in the vicinity of these discharges is not covered by the EFH designation for riverine systems, Cheese Cake Brook is tributary to Massachusetts Bay and Boston Harbor, which is considered EFH for the following species⁶:

Species	Eggs	Larvae	Juveniles	Adults
Atlantic cod (<i>Gadus morhua</i>)	X	X	X	X
haddock (<i>Melanogrammus aeglefinus</i>)	X	X		
pollock (<i>Pollachius virens</i>)	X	X	X	X
whiting (<i>Merluccius bilinearis</i>)	X	X	X	X
offshore hake (<i>Merluccius albidus</i>)				
red hake (<i>Urophycis chuss</i>)	X	X	X	X
white hake (<i>Urophycis tenuis</i>)	X	X	X	X
redfish (<i>Sebastes fasciatus</i>)	n/a			
witch flounder (<i>Glyptocephalus cynoglossus</i>)				

⁶ <http://www.nero.noaa.gov/hcd/STATES4/CapecodtoNH/42207100.html>, retrieved 9/16/11

Species	Eggs	Larvae	Juveniles	Adults
winter flounder (<i>Pseudopleuronectes americanus</i>)	X	X	X	X
yellowtail flounder (<i>Limanda ferruginea</i>)	X	X	X	X
windowpane flounder (<i>Scophthalmus aquosus</i>)	X	X	X	X
American plaice (<i>Hippoglossoides platessoides</i>)	X	X	X	X
ocean pout (<i>Macrozoarces americanus</i>)	X	X	X	X
Atlantic halibut (<i>Hippoglossus hippoglossus</i>)	X	X	X	X
Atlantic sea scallop (<i>Placopecten magellanicus</i>)	X	X	X	X
Atlantic sea herring (<i>Clupea harengus</i>)		X	X	X
monkfish (<i>Lophius americanus</i>)				
bluefish (<i>Pomatomus saltatrix</i>)				
long finned squid (<i>Loligo pealeii</i>)	n/a	n/a	X	X
short finned squid (<i>Illex illecebrosus</i>)	n/a	n/a	X	X
Atlantic butterfish (<i>Peprilus triacanthus</i>)	X	X	X	X
Atlantic mackerel (<i>Scomber scombrus</i>)	X	X	X	X
summer flounder (<i>Paralichthys dentatus</i>)				X
scup (<i>Stenotomus chrysops</i>)	n/a	n/a	X	X
black sea bass (<i>Centropristis striata</i>)	n/a		X	X
surf clam (<i>Spisula solidissima</i>)	n/a	n/a	X	X
ocean quahog (<i>Artica islandica</i>)	n/a	n/a		
spiny dogfish (<i>Squalus acanthias</i>)	n/a	n/a		
tilefish (<i>Lopholatilus chamaeleonticeps</i>)				

Species	Eggs	Larvae	Juveniles	Adults
bluefin tuna (<i>Thunnus thynnus</i>)			X	X

EPA believes that the Facility does not discharge into a designated EFH, based on its location and the information published by NOAA Fisheries listed above. Therefore, EFH consultation is not warranted.

10. ENDANGERED SPECIES ACT

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

EPA has reviewed the listing of federal endangered or threatened species of fish, wildlife, and plants to see if any such listed species might potentially be impacted by the reissuance of this NPDES permit and has not found any such listed species. Therefore, EPA does not need to formally consult with NMFS or USFWS in regard to the provisions of the ESA. During the public comment period, EPA has provided a copy of the Draft Permit and Fact Sheet to both NMFS and USFWS.

11. STATE CERTIFICATION REQUIREMENTS

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving waters certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State WQS. The staff of MassDEP have reviewed the draft permit and advised EPA that the limitations are adequate to protect water quality. EPA has requested permit certification by the State pursuant to 40 CFR 124.53 and expects that the draft permit will be certified.

12. PUBLIC COMMENT PERIOD, HEARING REQUESTS AND PROCEDURES FOR FINAL DECISION

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 Newton Tedder, U.S. EPA, Office of Ecosystem Protection, Industrial Permits Branch, Mailcode OEP 06-1, 5 Post Office Square, Suite 100, Boston, Massachusetts 02109-3912. Any person, prior to such date, may submit a request in writing for a public hearing to consider the Draft Permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public meeting may be held if the criteria stated in 40 C.F.R. § 124.12 are satisfied. In reaching a final decision on the Draft Permit, the EPA will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after any public hearings, if such hearings are held, the EPA 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 30 days following the notice of the Final Permit decision, any interested person may submit a petition for review of the permit to EPA's Environmental Appeals Board consistent with 40 C.F.R. § 124.19.

13. EPA AND MASSDEP CONTACTS

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

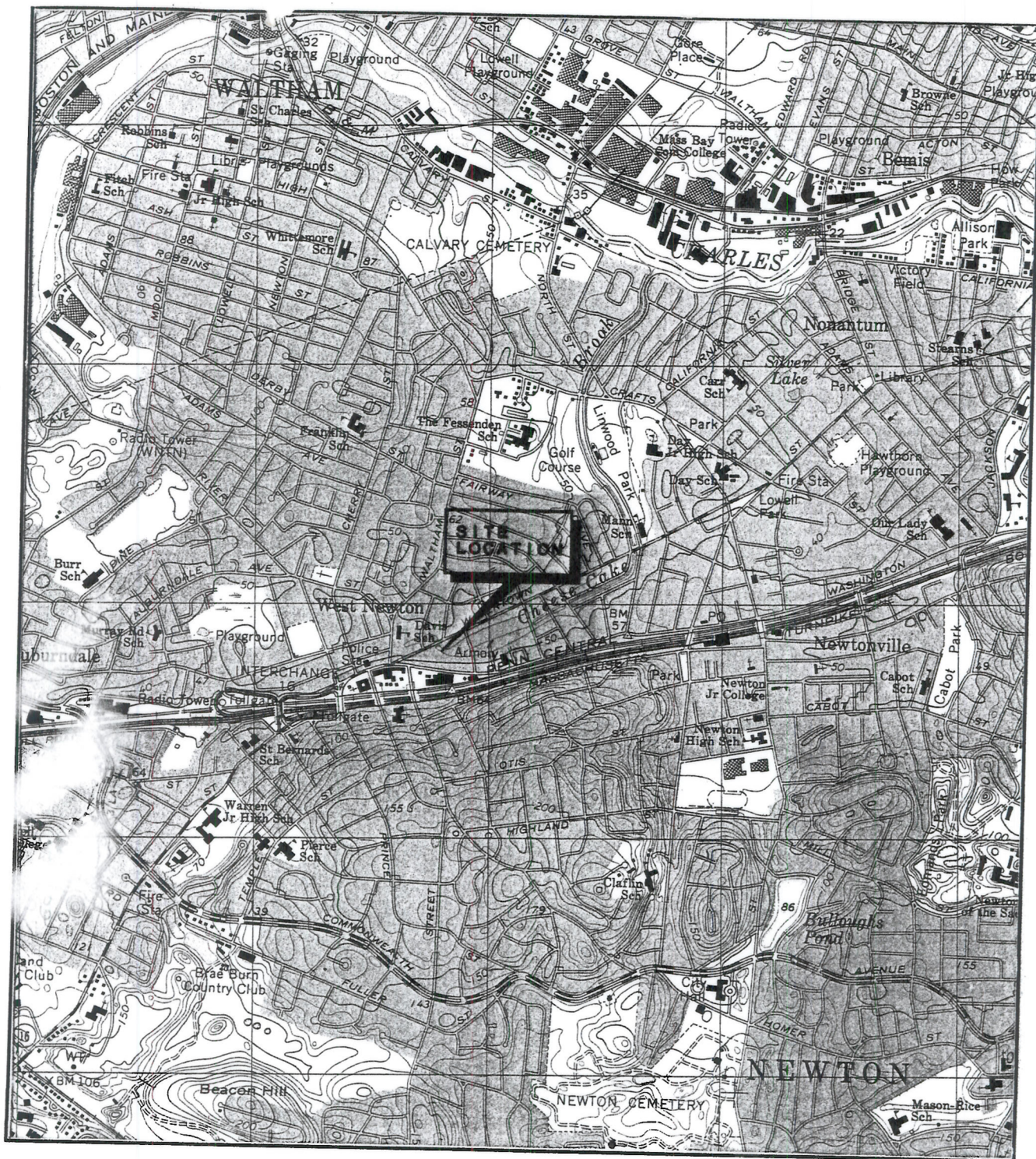
Newton Tedder, Industrial Permits Branch
5 Post Office Square - Suite 100 - Mailcode OEP 06-1
Boston, MA 02109-3912
Tedder.Newton@epa.gov
Telephone: (617) 918-1038 FAX: (617) 918-0038

Cathy Vakalopoulos, Massachusetts Department of Environmental Protection
Division of Watershed Management, Surface Water Discharge Permit Program
1 Winter Street, 5th Floor, Boston, Massachusetts 02108
catherine.vakalopoulos@state.ma.us
Telephone: (617) 348-4026; FAX: (617) 292-5696

Date

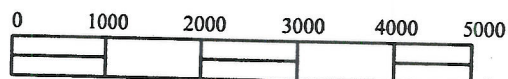
Stephen S. Perkins, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

ATTACHMENT A



Source: U.S. Geological Survey
1:25000 Quadrangle
Newton, MA
(1970)

Approximate Scale (feet)



North



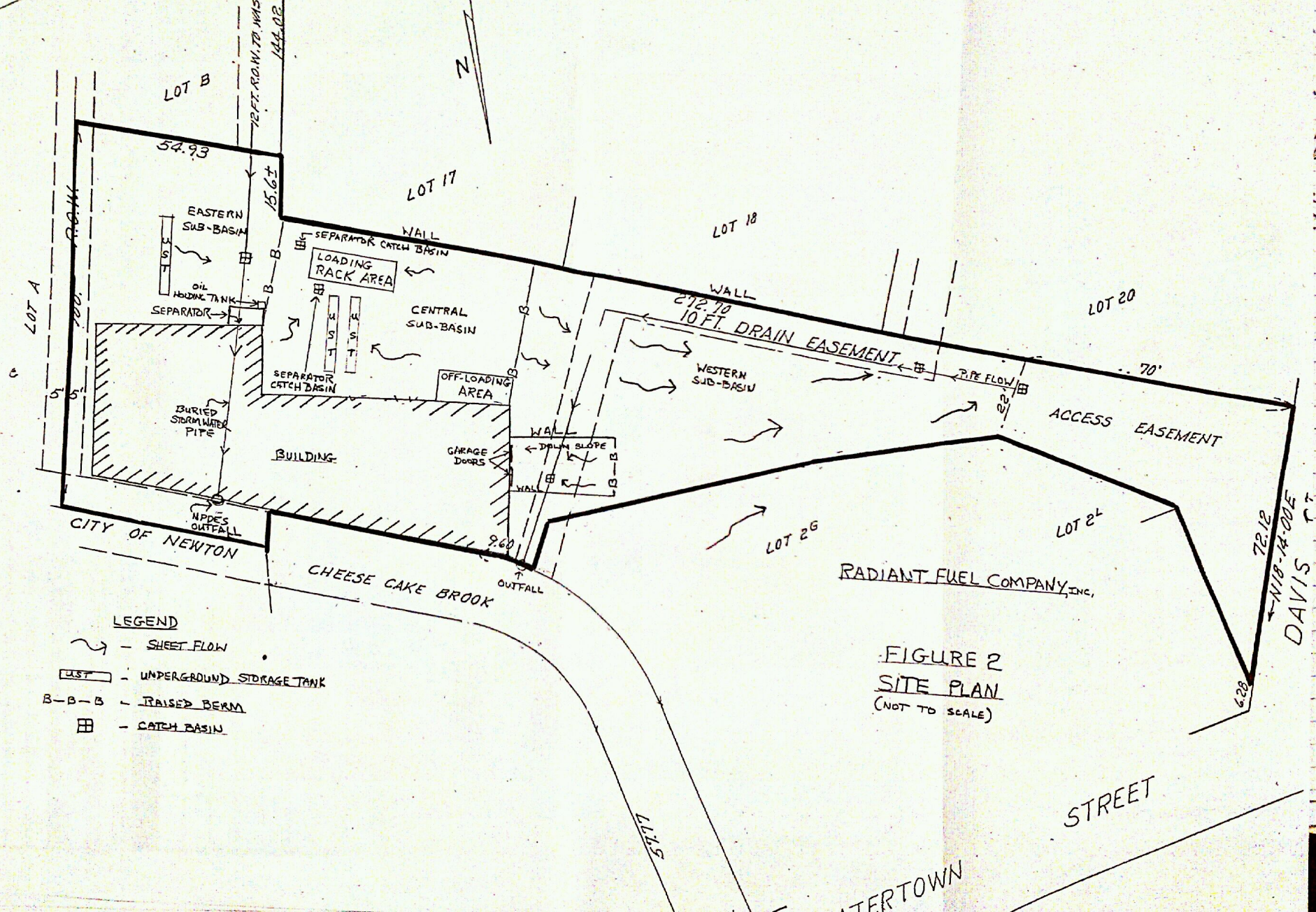
Web Engineering Associates, Inc.
104 Longwater Drive
Norwell, Massachusetts

SITE LOCATION MAP
RADIANT FUEL COMPANY, INC.
1211 WASHINGTON STREET
West Newton, Massachusetts

FIGURE

1

ATTACHMENT B



RADIANT FUEL COMPANY, INC.

FIGURE 2
SITE PLAN
(NOT TO SCALE)

ATTACHMENT C

	Operation and Flow			PAH								Oil and Grease, pH, and TSS				
	Facility operated during mnth, # days	Flow rate		Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene	Oil and Grease	pH		Solids, total suspended	
		DAILY MX	MO AVG	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX	MAXIMUM	MINIMUM	DAILY MX	MO AVG
Reporting Requirements	EVNT TOT															
Units	hr/mo	gal/min	gal/d	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	SU	SU	mg/L	mg/L
Limit	Req. Mon.	500	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	15	8.3	6.5	100	30
Monitoring Period End Date																
2/28/2006																
3/31/2006	2	1.19	480	0.08	ND	0.15	ND	ND	ND	ND	ND	6.1	6.43	6.43	0.5	0.5
4/30/2006	7	1.71	448									1.3	6.4	6.40	0.5	0.5
5/31/2006	12	4.33	1783									3.7	6.77	6.77	0.5	0.5
6/30/2006	12	13.76	1441	ND	ND	ND	ND	ND	ND	ND	ND	1	5.79	5.79	0.5	0.5
7/31/2006																
8/31/2006	7	3.81	784									2	5.92	5.92	0.5	
9/30/2006				ND	ND	ND	ND	ND	ND	ND	ND					
10/31/2006	8	9.62	964									1.1	6.15	6.15	0.5	0.5
11/30/2006	10	0.67	994									1.3	5.6	5.60	0.5	0.5
12/31/2006	5	1.62	648	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	1.8	6.21	6.21	0.5	0.5
1/31/2007	5	3.05	881									2.2	5.95	5.95	0.5	
2/28/2007																
3/31/2007				0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05					
4/30/2007	11	4.43	1046									1.7	6.19	6.19	0.5	
5/31/2007																
6/30/2007	4	6.95	909	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.17	3.2	6.35	6.35	0.5	
7/31/2007	7	8.19	1288									1.7	6.12	6.12	0.5	
8/31/2007	2	1.14	566									1.8	6.38	6.38	0.5	
9/30/2007	3	1.62	1034	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3	6.7	6.70	0.5	
10/31/2007																
11/30/2007																
12/31/2007	9	2	1000	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.62	2.1	6.21	6.21		0.5
1/31/2008																
2/29/2008																
3/31/2008	5	6.71	922	0.06	0.05	0.1	0.1	0.14	0.05	0.05	0.22	7.7	6.11	6.11	5	5
4/30/2008	15	9.04	1021.71									6	6.14	6.14	0.5	0.5
5/31/2008	21	9.42	668.57									7.1	5.52	5.52	0.5	0.5
6/30/2008	21	2.09	847.34	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	7.2	5.97	5.97	5	0.5
7/31/2008																
8/31/2008																
9/30/2008	33	20.56	935.06	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	5.4	4.71	4.71	0.5	0.5
10/31/2008	12	3.81	604.28									2.5	6.01	6.01	0.5	0.5
11/30/2008	15	16.85	1566.85									2.1	5.99	5.99	0.5	0.5
12/31/2008	33	2.29	1106.49	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.6	5.17	5.17	0.5	0.5
1/31/2009																
2/28/2009	18	2.86	554.28									2.5	6.35	6.35	8.5	8.5
3/31/2009				0.05	0.05	0.08	0.07	0.14	0.06	0.1	0.05					
4/30/2009	15	11.14	1416									2.8	5.96	5.96	0.5	0.5
5/31/2009																
6/30/2009				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1					
7/31/2009	33	8.1	1075									4.9	6.29	6.29	22	22
8/31/2009																

	Operation and Flow			PAH								Oil and Grease, pH, and TSS					
	Facility operated during mnth, # days	Flow rate		Benzo(a)ant hracene	Benzo(a)pyr ene	Benzo(b)flu oranthene	Benzo(k)flu oranthene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2, 3-cd)pyrene	Naphthalen e	Oil and Grease	pH		Solids, total suspended		
Reporting Requirements	EVNT TOT	DAILY MX	MO AVG	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX	MAXIMUM	MINIMUM	DAILY MX	MO AVG	
Units	hr/mo	gal/min	gal/d	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	SU	SU	mg/L	mg/L	
Limit	Req. Mon.	500	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	Req. Mon.	15	8.3	6.5	100	30	
Monitoring Period End Date																	
9/30/2009	15	2.57	1059	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.7	6.46	6.46	2.7	2.7	
10/31/2009	21	2.95	1266									4.2	5.89	5.89	2	2	
11/30/2009	15	14.19	1145									3.3	6.23	6.23	2	2	
12/31/2009	21	9.81	958	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	5.6	6.42	6.42	26	26	
1/31/2010	18	7.71	831.43									4.4	6.13	6.13	6.3	6.3	
2/28/2010																	
3/31/2010				0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1						
4/30/2010	15	0.57	610									6.5	6.48	6.48	0.5	0.5	
5/31/2010																	
6/30/2010	21	6.76	778.77	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	6.5	5.63	5.63	2	2	
7/31/2010	18	9.43	1643									6	6.05	6.05	6.3	6.3	
8/31/2010	12	4.67	1140									6	6.11	6.11	4	4	
9/30/2010	18	2.67	514	0.05	0.06	0.05	0.05	0.06	0.05	0.05	0.05	6.4	6.03	6.03	20	20	
10/31/2010	18	12.28	1114.28									4	6.34	6.34	14	14	
11/30/2010	18	7.43	845.77									5.2	6.69	6.69	2	2	
12/31/2010				0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05						
1/31/2011	27	1.81	870									6.1	6.32	6.32	21	21	
2/28/2011																	
3/31/2011				0.11	0.06	0.07	0.07	0.09	0.05	0.11	0.52						
4/30/2011	18	12.66	1154.28									4.1	6.35	6.35	13	13	
5/31/2011	24	3.52	692.14									3.9	7.42	7.42	16	16	
6/30/2011	24	4.86	1020	0.05	0.05	0.05	0.06	0.07	0.05	0.11	0.05	3.1	6.19	6.19	2	2	
7/31/2011																	
8/31/2011																	
Number	42	42	42	20	19	20	19	19	19	19	19	42	42	42	41	35	
Max	33.00	20.56	1783.00	0.11	0.10	0.15	0.10	0.14	0.10	0.11	0.62	7.70	7.42	7.42	26.00	26.00	
Min	2.00	0.57	448.00	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.00	4.71	4.71	0.50	0.50	
Average	14.95	6.21	967.27	0.07	0.07	0.08	0.07	0.08	0.07	0.08	0.14	3.86	6.15	6.15	4.65	5.24	
# of Violations	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	