

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),

Citgo Petroleum Corp.

is authorized to discharge from the facility located at

**Citgo Petroleum Corp.
385 Quincy Avenue
East Braintree, MA 02184**

to receiving water named

Weymouth Fore River (MA74-14)

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

This permit shall become effective on **the first day of the calendar month immediately following 60 days after signature.**

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

This permit supersedes the permit issued on October 31, 2002.

This permit consists of 14 pages in Part I including effluent limitations, monitoring requirements, and state permit conditions and 25 pages in Part II Standard Conditions.

Signed this 12th day of June, 2008

/S/ SIGNATURE ON FILE

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

Glenn Haas, 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 the effective date and lasting through the expiration date, the permittee is authorized to discharge **treated storm water, treated hydrostatic test water, and treated groundwater** from **outfall 001**. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirement ^{1,2}	
		Average Monthly	Maximum Daily	Measurement Frequency ³	Sample Type
Flow Rate⁴	gpm	Report	7,500	When Discharging	Estimate
Total Flow⁵	Mgal/month	Report Monthly Total	*****	When Discharging	Estimate
TSS	mg/l	30	100	1 / Month	Grab
Oil & Grease	mg/l	*****	15	1 / Month	Grab
pH⁶	s.u.	6.5-8.5 range (See Part I.A.4. Page 7)		1 / Month	Grab
Enterococcus Bacteria	CFU / 100 ml	*****	Report	1 / Quarter ⁸	Grab

See page 4 for explanation of footnotes

Part I.A.1, Continued

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements ^{1,2}	
		Average Monthly	Maximum daily	Measurement Frequency ³	Sample Type
Polynuclear Aromatic Hydrocarbons (PAHs) ⁷					
Benzo (a) anthracene	µg/l	-	Report	1/ Year	Grab
Benzo(a) pyrene	µg/l	-	Report	1/ Year	Grab
Benzo(b) fluoranthene	µg/l	-	Report	1/ Year	Grab
Benzo(k) fluoranthene	µg/l	-	Report	1/ Year	Grab
Chrysene	µg/l	-	Report	1/ Year	Grab
Dibenzo (a,h) anthracene	µg/l	-	Report	1/ Year	Grab
Indeno (1,2,3-cd) pyrene	µg/l	-	Report	1/ Year	Grab
Naphthalene	µg/l	-	Report	1/ Year	Grab
Volatile Organic Compounds (VOCs)					
Benzene	µg/l	-	51	1/ Quarter	Grab
Toluene	µg/l	-	Report	1/ Quarter	Grab
Ethylbenzene	µg/l	-	Report	1/ Quarter	Grab
Total Xylenes	µg/l	-	Report	1/ Quarter	Grab
Methyl Tertiary-Butyl Ether (MTBE)	µg/l	-	Report	1/ Quarter	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). A report stating that there was no discharge shall be submitted when there is no storm event during the reporting period, even if there was discharge associated with a storm event from a previous reporting period.
2. Samples taken in compliance with the monitoring requirements specified above shall be taken after treatment in the main Oil/Water Separator (OWS 1) but before the effluent is discharged into and/or mixes with the Weymouth Fore River.
3. Sampling frequency of 1/month is defined as the sampling of one (1) event (as defined above in Footnote 1) in each calendar month. Sampling frequency of quarterly is defined as the sampling of one (1) storm event (as defined above in Footnote 1) in each quarter. 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. **Quarterly and yearly sampling shall be performed concurrently with the monthly monitoring event.** The permittee shall submit the results to EPA of any additional testing done in addition to that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR §122.41(1)(4)(ii).
4. For Flow Rate, the maximum daily value represents the estimated maximum instantaneous flow rate identified by the facility as passing through the main Oil/Water Separator (OWS 1) for each day that storm water is discharged during the reported period. The maximum instantaneous flow rate, which is to be reported in units of gallons per minute (gpm), shall be based upon the total flow discharged during that day and the estimated total number of hours that storm water is discharged during the reporting period.
5. For Total Flow, the value reported represents the estimated sum of each day's storm water volume for each day that storm water is discharged during that month. The total monthly flow rate shall be determined based upon the estimated maximum daily flow rate and the estimated total number of hours that storm water is discharged during the reporting period. Total Flow shall be reported in the units of millions of gallons per month (Mgal/month). The permittee shall also report the total number of days during the reporting period in which there was a discharge from the outfall(s) (to be noted on DMR form under "Event Total" parameter).
6. Required for State Certification.
7. See Part I.A.17 and I.A.18
8. After two years of sampling, if no single sample exceeds 104 colonies per 100 ml or the geometric mean does not exceed 35 colonies per 100 ml, then no further monitoring for this parameter will be required (see 314 CMR 4.05(4)(b)(4)). If results exceed these values, then monitoring shall continue for the duration of the effective period of the permit.

PART I.A. (continued)

2. During the period beginning the effective date and lasting through the expiration date, the permittee is authorized to discharge **treated groundwater** from **outfall 002**. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements ¹	
		Average Monthly	Maximum daily	Measurement Frequency ²	Sample Type
Flow Rate ³	gpm	Report	25	Continuous	Recorder
Benzene	µg/l	-	5	1/ Month	Grab
Toluene	µg/l	-	Report	1/ Quarter	Grab
Ethylbenzene	µg/l	-	Report	1/ Quarter	Grab
Total Xylenes	µg/l	-	Report	1/ Quarter	Grab
Total BTEX (Benzene, Ethyl Benzene, Toluene and Xylenes)	µg/l	-	100	1/ Quarter	Grab
Methyl Tertiary-Butyl Ether (MTBE)	µg/l	-	70	1/ Month	Grab
Total Petroleum Hydrocarbons (THP)	mg/l	-	5	1/ Month	Grab

See page 6 for explanation of footnotes

Footnotes:

1. Samples taken in compliance with the monitoring requirements specified above shall be taken after treatment in the groundwater remediation Oil/Water Separator (OWS 2) but before the effluent is discharged into and/or mixes with additional waste streams.
2. Sampling frequency of 1/month is defined as the sampling of one (1) event (as defined above in Footnote 1) in each calendar month. Sampling frequency of quarterly is defined as the sampling of one (1) storm event (as defined above in Footnote 1) in each quarter. 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. **Quarterly sampling shall be performed concurrently with the monthly monitoring event.** The permittee shall submit the results to EPA of any additional testing done in addition to that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR §122.41(1)(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 remediation Oil/Water Separator (OWS 2). The maximum daily flow rate, which is to be measured in units of gallons per minute (gpm), shall be based upon the totalizer flow results or an approved equivalent flow measuring device.

Part I.A (continued)

3. The discharges either individually or in combination shall not cause a violation of State Water Quality Standards of the receiving waters which have been or may be promulgated.
4. The pH of the effluent shall be neither less than 6.5 nor greater than 8.5 at any time, unless these values are exceeded due to natural causes.
5. The discharge shall not cause a visible sheen or an objectionable discoloration of the receiving waters.
6. There shall be no discharge of floating solids or visible foam at any time.
7. The discharges 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.
8. There shall be no discharge of tank bottom water and/or bilge water alone or in combination with storm water discharge or other wastewater.
9. 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.
10. 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.
11. The permittee shall inspect, operate, and maintain the Oil/Water Separators 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 Separators and other components of the storm water conveyance system are complied with.
12. Chemicals (e. g. disinfecting agents, detergents, emulsifiers, etc.) 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 Weymouth Fore River.
13. There shall be no discharge of any sludge and/or bottom deposits from any storage tank(s), basin(s), and/or diked area(s) to the receiving waters. Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, O/W Separators, petroleum product storage tanks, baffled storage tanks collecting spills, and tank truck loading rack sumps.

14. The bypass of storm water runoff or water used at the facility is prohibited except where necessary to avoid loss of life, personal injury, or severe property damage. Each bypass shall be sampled for all the effluent characteristics identified in Part I.A.1. and I.A.2. 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) and Part II.B.4. of the Standard Conditions of this permit.
15. 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.
16. The appearance of any size sheen attributable to the discharge from the Citgo Petroleum terminal shall be reported immediately by the permittee to the appropriate U.S. Coast Guard Officer in accordance with Section 311 of the Clean Water Act (CWA). This requirement is in addition to any reporting requirements contained in the National Pollutant Discharge Elimination System (NPDES) permit.
17. The reporting of PAHs as described in the effluent limits for Outfall 001 will be based on the following Minimum Levels (MLs) of reporting as identified in parentheses for each compound: benzo(a)anthracene (<0.05 µg/L), benzo(a)pyrene (<2.0 µg/L), benzo(b)fluoranthene (<0.1 µg/L), benzo(k)fluoranthene (<2.0 µg/L), chrysene (<5.0 µg/L), dibenzo(a,h)anthracene (<0.1 µg/L), indeno(1,2,3-cd)pyrene (<0.15 µg/L), and naphthalene (<0.2 µg/L).
18. The permittee shall attach a copy of the laboratory case narrative to the respective Discharge Monitoring Report (DMR) Form submitted to EPA and MassDEP for each sampling event reported. The laboratory case narrative shall include a copy of the laboratory data sheets for each analysis (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.
19. The permittee shall notify the regulatory agency in writing of any changes in the operations, including the use of chemical additives, at the facility that may have an effect on the permitted discharge of wastewater from the facility.
20. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR §122.42):
 - 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":
 - (i) One hundred micrograms per liter (100 µg/l);

- (ii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
 - (iii) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts 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":
- (i) Five hundred micrograms per liter (500 µg/l);
 - (ii) One milligram per liter (1 mg/l) for antimony;
 - (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
 - (iv) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.
- 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.

21. 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.

22. Wastewater Treatment System Flow Control

Written notification and approval by EPA and the MassDEP shall be required, should the permittee propose changes to either the storm water conveyance or treatment systems which have the potential to cause the maximum design flow rate through the O/W Separator to be exceeded.

23. Hydrostatic Test Water Discharges

- a. The hydrostatic test water shall be monitored as described below and treated through the oil/water separator prior to being discharged through Outfall 001 to the Weymouth Fore River. In addition, the flow of hydrostatic test water into the treatment system shall be

controlled to prevent it from exceeding the maximum design flow rate of the treatment system.

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

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

Effluent Characteristic	Units	Sample Type
Total Suspended Solids (TSS)	mg/l	Grab
Oil and Grease (O&G)	mg/l	Grab
pH ⁽⁷⁾	S.U.	Grab
Dissolved Oxygen (DO)	mg/l	Grab
Total Residual Chlorine	mg/l	Grab
Benzene	mg/l	Grab
Toluene	mg/l	Grab
Ethylbenzene	mg/l	Grab
Total Xylenes	mg/l	Grab
Methyl tertiary-butyl ether	mg/l	Grab
PAHs	µg/l	Grab
Benzo(a)anthracene	µg/l	Grab
Benzo(a)pyrene	µg/l	Grab
Benzo(b)fluoranthene	µg/l	Grab
Benzo(k)fluoranthene	µg/l	Grab
Chrysene	µg/l	Grab
Dibenzo(a,h)anthracene	µg/l	Grab
Indeno(1,2,3-cd)pyrene	µg/l	Grab
Acenaphthene	µg/l	Grab
Acenaphthylene	µg/l	Grab
Anthracene	µg/l	Grab
Benzo(ghi)perylene	µg/l	Grab
Fluoranthene	µg/l	Grab
Fluorene	µg/l	Grab
Naphthalene	µg/l	Grab
Phenanthrene pyrene	µg/l	Grab

- c. Testing for total residual chlorine is only required when potable water or a similar source of water which is likely to contain a residual chlorine concentration is used for hydrostatic testing. Testing for MTBE is only required if the tank undergoing testing was recently (i.e., within three years of the proposed testing date) used to store gasoline containing MTBE.
- d. During discharge (i.e., approximately at the same time the three effluent grab samples are taken), the flow exiting the treatment system should be observed in order to prevent the inadvertent release of hydrocarbons to the receiving water(s). In the event that there is evidence of such a release (e.g., visible oil sheen, noticeable increase in turbidity of discharge water, etc.), the permittee shall immediately halt the discharge of hydrostatic test water and take steps to correct the problem.
- e. Any changes to these procedures must be approved by EPA and the MassDEP prior to their implementation.
- f. The permittee shall submit a letter/report to EPA, the MassDEP, and the Director of Public Works of the municipality in which the facility is located, summarizing the results of the hydrostatic test within forty-five (45) days of completion of the test. This report shall contain: the date(s) during which the hydrostatic testing occurred; the volume of hydrostatic test water discharged; a copy of the laboratory data sheets for each analyses, providing the test method, the detection limits for each analyte, and a brief discussion of whether all appropriate QA/QC procedures were met and were within acceptable limits; and a comparison of the overall test results with the effluent limitations in this permit.
- g. The U.S. Environmental Protection Agency shall reserve the right to re-open the permit, in accordance with 40 CFR §122.62(a)(2), to limit hydrostatic test water discharges in the event that sampling results indicate that such discharge has a reasonable potential to cause or contribute to a violation of Massachusetts Water Quality Standards in the Weymouth Fore River.

B. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

1. The permittee shall develop, implement, and maintain a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce, or prevent, the discharge of pollutants in storm water to the receiving waters identified in this permit. The SWPPP shall be a written document and consistent with the terms of this permit. The permittee shall comply with the terms of its SWPPP.
2. The SWPPP shall be completed or updated and signed by the Permittee **within 90 days after the effective date of this Permit**. The Permittee shall certify that the SWPPP has been completed or updated and that it 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 initial 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 Permits for Storm Water Discharges Associated with Industrial Activities. (The current MSGP was issued October 30, 2000 – see 65 FR 64812-64815.) The SWPPP shall include best management practices (BMPs) for on-site activities that will minimize the discharge of pollutants in storm water to waters of the United States.
4. The SWPPP shall be prepared in accordance with good engineering practices, identify potential sources of pollution that may reasonably be expected to affect the quality of the storm water discharges, and 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 storm water 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 storm water discharge sampling data.
 - e. A description of all storm water 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 conditions.
 - f. A description of the operation and maintenance procedures for the oil/water separators. The plan shall include, but not be limited to, measures to ensure the separators perform within the designed performance standards of the systems and are maintained on a routine basis to maximize the design capacity and efficiency of the systems.
5. All areas identified in the SWPPP shall be inspected, at least on a quarterly basis. Inspections shall occur beginning the 1st quarter after the effective date of the permit. EPA considers quarters as follows: January to March; April to June; July to September; and October to December.
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 certify at least annually that the previous year's inspections and maintenance activities were conducted, results were recorded, records were maintained, and that the facility is in compliance with the SWPPP. If the facility is not in compliance with any aspect of the SWPPP, the annual certification shall state the non-compliance and the remedies which are being undertaken. Such annual certifications also shall be signed in accordance with the requirements identified in 40 CFR §122.22. The permittee shall keep a copy of the current SWPPP and all SWPPP certifications (the initial certification, re-certifications, and annual certifications) signed during the effective period of this permit at the facility and shall make it available for inspection by EPA and MassDEP.

C. UNAUTHORIZED DISCHARGES

This permit authorizes the permittee to discharge only in accordance with the terms and conditions of this permit and only from the outfalls listed in Part I A. of this permit. Discharges of wastewater from any other point sources which are not authorized by this permit or other NPDES permits shall be reported in accordance with Part II. D.1.e. (1) of the Standard Conditions of this permit (Twenty-four hour reporting).

D. MONITORING AND REPORTING

Monitoring results obtained during each calendar month shall be summarized and reported on Discharge Monitoring Report Form(s) postmarked **no later than the 15th day of the following month.**

Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director at the following address:

Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114

In addition, copies of all Discharge Monitoring Report Form(s) and all other reports required by this permit shall also be submitted to the State at following addresses:

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
Southeast Regional Office
20 Riverside Drive
Lakeville, Massachusetts 02347

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

E. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP pursuant to M.G.L. Chap. 21, §43.

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 an 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.