

**RESPONSE TO COMMENTS
REGARDING THE REISSUANCE OF THE FOLLOWING NPDES PERMIT
CITGO PETROLEUM CORPORATION MA0004782**

Introduction:

The U.S. Environmental Protection Agency (EPA) solicited public comments from March 12, 2008 through April 10, 2008 on the draft National Pollution Discharge Elimination System (NPDES) permit to be issued to CITGO Petroleum Corporation. During the public-notice (comment) period EPA-New England received comments from Donald Griffin, the Environmental, Health, Safety & Security Manager of CITGO Petroleum Corporation.

In accordance with the provisions of 40 C.F.R. §124.17, this document presents EPA's responses to comments (RTC) received on the Draft NPDES Permit (MA0004782) and details any changes made to the public noticed Draft Permit as a result of the comments. EPA's decision-making for this permit has benefited from the comments submitted. EPA has improved certain requirements as a result of the comments raised. In addition, EPA modified certain language for the purposes of clarification. These changes are summarized below and are reflected in the Final Permit. The analyses underlying these changes are explained in the responses to individual comments that follow.

Changes Made to the Final Permit as a Result of Public Comments

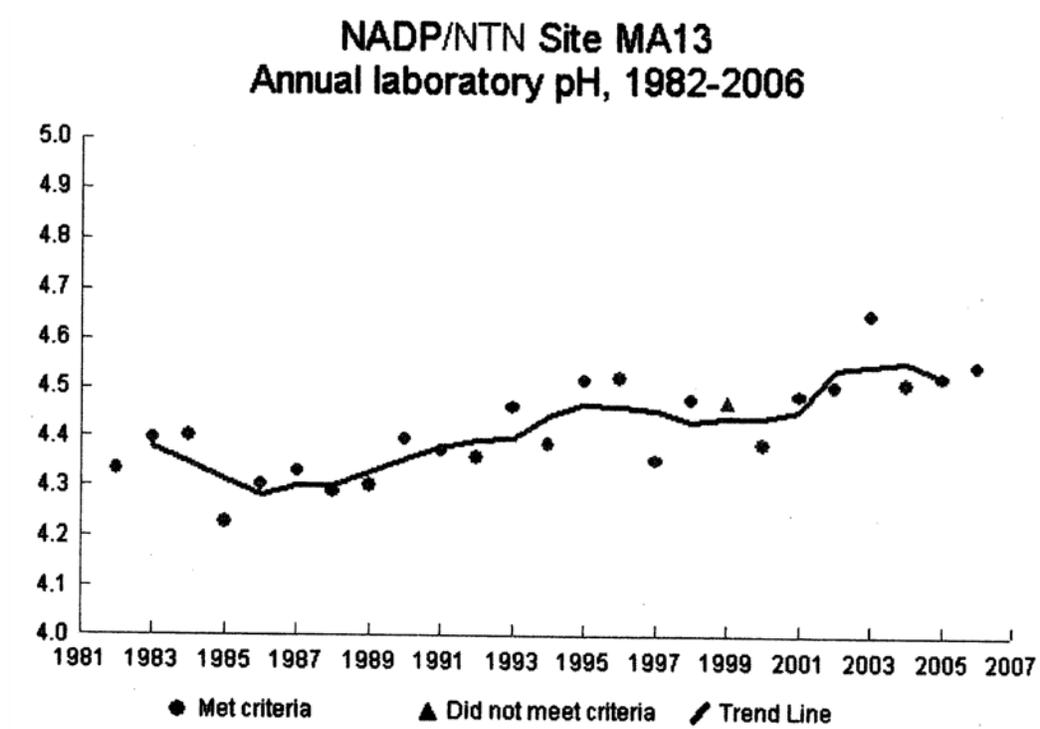
1. The following footnote was added regarding the monitoring requirements for Enterococcus Bacteria:

“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.”

2. The final sentence of Footnote 1 on page 7 was clarified from: “A report stating that there was no discharge shall be submitted when there is no storm event, and subsequently no discharge, during the reporting period” to “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 a discharge associated with a storm event from a previous reporting period”.

Comment No. 1

Specifically, CITGO wishes to express concern over the discharge limits of 6.5 to 8.5 for pH, and our ability to consistently meet those limits in our storm water discharge. It is well known that pH levels in rainwater in the Northeast are acidic. Please refer to the attached graph [included below], which summarizes pH data collected from the National Atmospheric Deposition Program (NADP) monitoring location MA 13 in Lexington, MA. These data, shown for the last 20 years, demonstrates that the pH of rainwater in this area is consistently between 4.2 and 4.7 Standard Units.



In addition, please also refer to [Attachment B of the Fact Sheet] entitled “CITGO Petroleum Corp. Outfall 001 – Sampling Results”. This table is a summary of the discharge sampling results from April 2005 through October 2007. Note that the results are consistently below pH 7.0, and were at or below 6.5 on several occasions.

The subject property is a petroleum storage and distribution terminal, and there are no processes at this facility that alter pH. We attribute the rise in pH from rainwater to storm water discharge to the natural buffering capacity of the surficial soils impermeable surfaces at the Terminal. However, the buffering ability of the soil and impermeable surfaces is limited and insufficient to ensure that pH levels in the discharge will consistently be above 6.5.

In addition, CITGO has reviewed information relative to pH levels in the Fore River water (see [below] Table 4.12, copied from the technical report titled “Rainbow Smelt Spawning Habitat, Massachusetts Division of Marine Fisheries, December 2006). The data in this table shows pH of the river water between 7.3 and 7.6 during the years 1988, 1989, and 1990. According to the NADP data, the pH of rainwater during this period was approximately 4.4. We conclude that the

low pH of rainwater does not result in a violation of the water quality standards or lower the quality of the classified body of water.

Table 4.12 Water chemistry and weather summary for the Fore River smelt spawning station, 1988-1990. Data are averages (Tables A.36-A.38) except station visits and NOAA rainfall data are total values. Air temperature and rainfall data were recorded at Hingham, Massachusetts (NOAA 1988-1990).

Sample Period	Station Visits (No.)	NOAA Air Temp. (°C)	NOAA Rainfall (cm)	Water Temp. (°C)	Water Salinity (ppt)	Water pH	Water D.O. (mg/l)
1988							
March	9	3.8	10.4	5.8	0.0	7.4	
April	8	7.6	4.8	9.6	0.0	7.4	
May	7	13.7	9.4	14.2	0.0	7.6	
Season	24	8.4	24.6	9.5	0.0	7.5	
1989							
March	10	2.3	9.6	3.7	0.0	7.5	13.6
April	6	7.1	11.2	10.5	0.0	7.5	11.3
May	4	13.5	13.2	15.5	0.0	7.3	10.3
Season	20	7.6	34.0	8.1	0.0	7.5	12.2
1990							
March	8	4.4	5.1	4.0	0.0	7.4	13.5
April	8	8.6	13.5	9.2	0.0	7.3	11.7
May	8	12.3	19.3	14.9	0.0	7.4	10.5
Season	24	8.4	37.9	9.4	0.0	7.4	11.9

The draft language in the permit states “the pH of the effluent shall not be less than 6.5 nor greater than 8.5 at any time unless these values are exceeded as a result of natural causes.” CITGO hereby requests that the USEPA acknowledge that the pH of rainwater in this area is acidic, and that this is a natural condition that affects the pH of our discharging storm water. We further request that if future pH measurements fall below 6.5 S.U., that this condition not be considered a violation of the permit.

Response to Comment No. 1:

EPA acknowledges that rainwater in New England is often acidic and may affect the pH of storm water discharges from industrial facilities. The requirement at Part I.A.4. of the permit states that “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”. This requirement is based on the Massachusetts Surface Water Quality Standards (see 314 CMR 4.05(4)(b)(3)) and takes into account that changes in pH might not be attributed to an on-site operation. This requirement shall be retained in the Final Permit.

EPA agrees that the pH of the discharge at CITGO can be attributed to the low pH of rainfall. The results of acid rain will be taken into account when EPA reviews the facility’s DMRs. However, for discharge samples whose pH falls below 6.5 s.u., EPA suggests that the facility collect rainwater samples from the same storm event and record the pH. This will provide data documenting the low pH of the storm water as a possible source of the low pH of the discharge.

Comment No. 2:

Our final comment on the draft permit relates to the new requirement to monitor for Enterococcus Bacteria. There are no processes or sources on the Terminal property that produce or result in any kind of bacteria. The fact sheet states in Section III, “Based on the nature of the discharges for CITGO Petroleum, they are not expected to contribute to the existing impairments due to pathogens”. While we understand that the Fore River has been degraded by bacterial contamination, we suggest that nearby MWRA and Town of Braintree combined sewers are the likely source, rather than our petroleum bulk storage facility. We therefore request that the requirement to collect bacteria samples be removed from our permit.

Response to Comment No. 2:

Storm water runoff from impervious surfaces has the potential to contain high concentrations of bacterial contamination. Based on the pathogen impairment of the Fore River, EPA is examining many facilities to determine possible sources of bacteria for this receiving water. Currently, there exists no data detailing the contribution of bacteria by CITGO. While the activities at the facility are not expected to contribute to the impairment, the potential exists for runoff from the large area of impervious surfaces to contain high concentrations of bacteria.

EPA maintains that data regarding the concentrations of bacteria in the discharge is needed to determine the contribution of bacteria from CITGO to the Fore River. Monitoring requirements, with no limits, were included in the Draft Permit to provide this data. However, EPA has modified the monitoring requirements in the Final Permit to allow an elimination of monitoring if results from at least two years of sampling are in compliance with Massachusetts Surface Water Quality Standards (see 314 CMR 4.05(4)(b)(4)). If monitoring results are not in compliance with state water-quality standards, CITGO is required to continue monitoring for the duration of the effective period of the permit.