CITGO Petroleum Corporation

P.O. Box 4689
Houston, TX 77210-4689

CERTIFIED MAIL RETURN RECEIPT REQUESTED
7005 0390 0005 3108 3057

March 24, 2006

Chief
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, DC 20044-7611
Reference Case No. 90-5-2-1-07277

Re:

Alternative Monitoring Plans, Appendix E and F
Corpus Christi East Refinery and Corpus Christi West Refinery
CITGO Petroleum Corporation
Civil Action Number H-04-3883
Southern District of Texas, Consent Decree entered January 26, 2005

Dear Chief:

CITGO submitted on July 26, 2005, pursuant to Section V.G., Paragraph 64.c. of the referenced Consent Decree, requests for Alternative Monitoring Plans (AMP) for NSPS Subpart J refinery fuel gas streams and fuel gas combustion devices at the Corpus Christi East Refinery and the Corpus Christi West Refinery. CITGO received a denial letter dated February 22, 2006 for one of the AMPs submitted. Therefore, CITGO has revised the AMPs and requests that the enclosed AMPs replace the July 26, 2005 submittals described in Enclosure 1. The AMP requests for fuel gas streams listed in Appendix E and fuel gas combustion devices listed in Appendix F are included as Enclosures 2 - 10.

Copies are being provided to EPA Headquarters and the Applicable EPA Region as described in Section XVII.

If there are questions, or additional information is required, please contact Janice DeVelasco at 832-486-1521.

Sincerely,

Janice DeVelasco
for

Allen Greene
Manager Environmental Protection

Enclosures

ENCLOSURE 10

ALTERNATIVE MONITORING PLAN
CITGO Petroleum Corporation
Corpus Christi East Refinery
Appendix F

ALTERNATIVE MONITORING PLAN
CITGO Petroleum Corporation
Corpus Christi East Refinery
CPI Vapor Combustor

Introduction

The following Alternative Monitoring Plan (AMP) has been developed in accordance with USEPA's guidance issued in *Alternative Monitoring Plan for NSPS Subpart J Refinery Fuel Gas: Conditions for Approval of the Alternative Monitoring Plan for Miscellaneous Refinery Fuel Gas Streams (RFG Guidance).* The RFG Guidance specifies information that must be included to allow for a determination of appropriateness of the AMP. The following information is submitted, per the RFG Guidance, for approval of the use of described recordkeeping and reporting requirements as an alternative to the monitoring described in NSPS Part 60, Subpart J. This request is being made for the CPI Vapor Combustor.

Process Description

The Waste Water Treatment Plant at the CITGO Corpus Christi East Refinery consists of a primary oil removal, equalization, secondary oil removal and biological treatment system. The primary oil removal occurs at the Corrugated Plate Interceptors (CPI's). Water, gases and sludge are also separated in this system. The CPI is equipped with a vapor combustor (CPI Flare 82-ME-016). The vapors produced at the CPI's (82-ME-10A & B) and at the slop oil tank (82-Tk-114) are thermally oxidized to carbon dioxide, nitrogen, oxygen, water and other compounds.

For purposes of this AMP, the CPI vapor stream was monitored at a point upstream of the fuel gas injection to the vapor combustor, as shown on the attached Piping and Instrument Diagram (82-4-8116A). The only gas that is combusted in the CPI combustor is the fuel gas from the mixed fuel gas drum that is monitored according to NSPS Part 60, Subpart J, and the CPI vapor, for which this AMP is requested. The fuel gas serves as the motive gas to entrain the low pressure (2 to 5 inches W.C.) CPI vapors.

Process Flow

See the attached P&ID's; 82-4-8111E, 82-4-8112A and 82-4-8116A.

No Crossover or Entry Points for Sour Gas

The CPI combustor does not contain any crossover or other entry points for sour gas to be introduced into the CPI vapor. The only gas that is combusted in the CPI Flare is the fuel gas from the mixed fuel gas system and the CPI's vapor, for which this AMP is requested.

ALTERNATIVE MONITORING PLAN
CITGO Petroleum Corporation
Corpus Christi East Refinery
CPI Vapor Combustor

Initial Monitoring

Attached in Table 1 are 14 vapor samples collected for the CPI Vapor Combustor as required by the RFG Guidance. The hydrocarbon vapor from the two CPI's was monitored at a point upstream of the fuel gas injection to the vapor combustor, as shown on the attached P&ID (82-4-8116A). All samples were obtained as grab samples and analyzed using GASTEC Detector Tubes (No. 4LL, Hydrogen Sulfide, range 0.25-2.5/2.5-60ppm N=10/1). The vapor H_2S content averaged 2.0 ppm.

Monitoring Results Description/Evaluation

The monitoring consisted of collecting fourteen grab samples during normal operation for a period of 14 consecutive days (from May 28, 2005 to June 10, 2005). The fourteen grab samples indicated the H_2S in the vapor stream averaged 2.0 ppm, and the average plus three standard deviations is 8 ppm. The results listed in Table 1 are representative of typical operating conditions. This data demonstrates that the average plus three standard deviations is well below 81 ppm H_2S, thus providing sufficient margin to ensure that the emission limit is not exceeded under normal operating conditions.

Monitoring Proposal (Revised)

1. CITGO Corpus Christi East Refinery will monitor the H_2S content of the CPI's vapor stream on a 1 time/day frequency with detector tubes of an appropriate range.

2. Though not expected, if at any time the CPI's vapor stream average detector tube result plus 3 standard deviations for the seven most recent samples is greater than 81 ppm H_2S, CITGO shall notify the agency of those results before the end of the next business day following the last sample day. Sampling will continue on a once/day basis until the agency approves a revised sampling schedule or makes a determination to withdraw approval of the gas stream/system from the AMP.

Records of the H_2S detector tube readings will be maintained for a period of two (2) years.

ALTERNATIVE MONITORING PLAN
CITGO Petroleum Corporation
Corpus Christi East Refinery
CPI Vapor Combustor

Table 1

Sample Date	CPI Gas H_2S (ppm)
5/28/05	5.0
5/29/05	5.0
5/30/05	0.0
5/31/05	0.0
6/1/05	0.0
6/2/05	0.0
6/3/05	0.0
6/4/05	2.5
6/5/05	0.0
6/6/05	3.0
6/7/05	2.5
6/8/05	5.0
6/9/05	2.0
6/10/05	1.5
Average	**2.0**
Average + 3 STDV	**8.0**